CHAPTER -ONE

INTRODUCTION

1.1 Background of the Study

Tax is a compulsory contribution made to government by its citizen according to some general rule with reference to any special benefit. In other words, tax may be defined that is a realizable source to increase revenue for the use of public benefit.

Economic development which implies to maximize the welfare people and efficient allocation of resources is no doubt the most important concern and the target of the most government policy tools in the under develop countries. Achievement of high rate of economic growth, reduction of income disparities and poverty and improvement of the living standard of the people are some of the development strategies towards which most of the government efforts have been directed in developing countries. Despite these strategies and efforts, the condition of developing countries has not been improved yet since many of them are still suffering by poverty in which having low income, low saving, low productivity and low investment of the capital formation. According to professor R. Nurkes "a nation is poor because it is poor."

In developing countries like Nepal, large volume of resources is essential to overcome the above mentioned problem and for financing sustain also growth of the public investment. The prospect of mobilizing resources through sources other than taxation has not been in coursed.

Government expenditure is increasing because of the demand of time, increase in population, social progress, and security expenses. To meet the growing public expenditure, the government has to manage its fund from internal as well as external sources. External sources of fund are foreign loans and grant & subsidies, etc. such external sources are uncertain, incontinent and not good for healthy development if there is heavy dependent on them. It is better to mobilize internal sources rather than expecting with beggars eye to the donors.

Taxation and economic development are closely interrelated concepts. Taxation has important role of country in the economic development. In recent decade, many developing countries around the world have begun to focus their attention on reforming their poorly designed defective tax structure as an integral part of their development efforts. Tax as major fiscal policy instrument and important government policy tools have an important role in increasing the rate of capital formation and thereby achieving a high rate of economic growth. The role of taxation in economic development lies in its Function of raising a maximum volume of resources and directs the follows of resources into useful and productive channel of investment so the country's productivity capacity is enhanced. Taxation may be designed such that it can play a major role in country's economic development.

Taxation has become a main source of resource mobilization to meet the financial requirement of the government. The tax system should be helpful in economic redistribution and economic stability. The taxation is the function of economic development to combat inflation, alleviate poverty, reduce the gap between rich and poor, narrow the size of revenue expenditure, (remote the national economy, mobilize the domestic resources for economic development and save the domestic economy).

Taxes may be direct as well as indirect. When a tax is demanded from the very person who is intended to pay it and there is no expectation of their beginning in a position to shift it on to some other persons. It is called direct tax. Income tax is a direct tax. Indirect taxes are levied on the supposition that the person first called on to pay can transfer the burden to other. The impact and incidence are on different person in the indirect taxes. Indirect tax includes sales tax, (VAT) Value Added Tax custom excise duty etc.

Thus, indirect taxes are the most important sources of government revenue which plays a significant role to develop the country. VAT is one of the components of indirect taxes. VAT is an indirect tax, no one can deceit the importance of its in developing countries like Nepal.

Value added tax is tax imposed on the value added in each economic activity from production to consumption. Its means VAT is charge to value addition done to prepare the final product. Value added is the excess of sales volume over purchase by a manufacturing or trading firm during a period of time a certain percentage of tax is levied on the added value at various levels of such production and distribution. Business people only collect the VAT as a mediator so that they do not bear its burden. Final consumers are the payers of the VAT.

VAT is the most essential choice for the most developing countries like Nepal. It is important instrument for the mobilization of internal resources.

1.2 Statement of problem

Nepal's fiscal year budget is increasing each year due to some reasons. But the sources are limited and expenditures are unlimited. Nepal is running in a critical situation. Budget provides the guidelines to come over up from the problem by allocating the sources to the target level. Budget is a structure of revenue and expenditure of a country for each year. Each year and every government is preparing deficit budget. Deficit means excess expenditure over the revenue. Thus, it is clearly seen that revenue sources are limited and going to decrease day by day by unstable political situation. Revenue includes various types of direct as well as indirect incomes. Nepal's Budget contains aid from the foreign countries and internal resources. Internal resources typically be can classify but the main ingredient of internal resources is tax revenue. Tax revenue includes direct as well as indirect taxes. Foreign grant and aids are unstable sources but tax revenue is a stable source than other way of revenues. Taxes revenue is playing vital role to develop the country in economic point of view. Tax revenue is the contribution made by public and business enterprises to the government.

Indirect tax includes various taxes but of them and most important part of indirect tax revenue is VAT. Value added tax is contribution made by enterprise toward government. It is the main internal sources of income of government. VAT is the most reliable tax collection system and it is applying in Nepal since sales tax system was eliminated by government. Government reforms the tax system to make effective implementation of rules and regulation especially to control the leakage of tax. Government implies thesis style because it is the most scientific method on collecting the tax revenue. Increasing trend in collecting revenue (i.e. VAT) indicates that the tax administration performance is being effective and tax system is right to apply and decreasing trend indicates the negative result in all sectors. The role of government and tax administration should be effective to

increase the resources. That's why is research is basically focused on the collection of VAT by replacing the sales tax system. This research rise the question, is the government collecting the VAT more than the sales tax system? If does not so, was the sales tax system more effective than VAT?

1.3 Focus of the Study

This research is focused only sales tax and VAT. To do comparative study of sales tax revenue and VAT is main objective of the research. The main focus of the study is found out which method collects the more tax revenue from the indirect sources.

1.4 Objective of the Study

The main objective of the study is to gain insight into the contribution of VAT and Sales tax in public revenue. The others objective of this study can be written as follows;

i. To analyze contribution of VAT and sales tax on revenue.
ii. To make projection of sales tax and compare between Vat and sales tax till the research date.
iii. To find out the effectiveness of VAT in comparison to Sales tax in collection of tax revenue.

1.5 Significance of the study

VAT is being itself a completed tax, more efforts should be made on actual circumstances. Theoretical and practical studies are required to implement and increase VAT collection. VAT replaces that sales tax, hotel tax, entertainment tax contract tax that's why the collection the recommendation options will make proper decision about effective in terms of collection of tax revenue and can prepare effective plan and program increase tax revenue collection to concern authorities. In such a manner the study has got great significance.

1.6 Limitation of the study

I. This research is related only sales tax and VAT.
II. It considers only tax collection of VAT and sales tax system.
III. It depends basically upon published secondary source of data.

1.7 Organization of the study

The whole report of this study divided into five different chapters. They are as follows:

Chapter 1: Introduction: This chapter includes back ground of the study, statement of problems, focus of study, objectives of study, significance of the study, Limitation of the study, Organization of the study.

Chapter 2: Review of literature: This chapter presents the concept of the VAT, origin and development**,** origin and destination principle, origin of principle, destination of principle, types of VAT, methods of computing VAT, structure of VAT, operation of VAT, collection of VAT, provision of VAT in Nepalese act, a brief review of previous research work and research gap.

Chapter 3: research methodology: This chapter includes the research design, source of data and collection procedure, data analysis procedure and research variables.

Chapter 4: presentation and analysis of data: This chapter presents the data presentation & analysis and major findings.
Chapter 5: Summary, Conclusion and Recommendation: This chapter includes the summary, conclusion and recommendation.

CHAPTER-TWO

REVIEW OF LITERATURE

2.1 Concept of VAT

Value added tax is a tax levied on value added on goods and services by the business enterprises at the successive stages of production and distribution. Value added for a firm is the gross receipts from sales after subtracting all expenditure on goods and services purchased from other firms. Looking from one angle value added by a firm is the firm the sum total of incomes paid out by the firm to factors employed and value is added by processing or handling these purchased items with its own labour force and its machinery, building or other capital goods.

Clear concept can be attained through an example. Consider the case of sugar production. A farmer produces sugarcane and sells to the miller. Miller adds value in the process of charging sugarcane into sugar. All the expenditure including profit made by the miller constitutes the value added of that miller. Miller sells his product that is sugar to the whole seller who, in turn, sells to the retailer with an increased value. Ultimately, sugar is sold to consumers with some additional value. Thus, at each stage of production and distribution, value is added and some total of all such value added exactly equals to the final sales value of the sugar.

VAT like other sales taxes is classified as an indirect tax because its paid by business firm to the government and shifted to the purchasers of the product rather than being collected directly by the government from the purchases good and services constitutes base of VAT and it is shifted forward to the consumers.

A basic characteristic of VAT is that deduction is permitted of tax paid on purchase of goods purchased for direct resale, and materials and parts of physically incorporated into goods to be sold.

2.1.1 Meaning of VAT

Different experts and institution have attempted to give the meaning of VAT according to their own interpretations. Here some of these definitions may be studied. In the words of Ishwar Battarai and Girija Koirala,& pushpa Raj Kandel.

VAT is a general consumption tax assessed on the value added to goods and services. It is a general tax that applies, to all commercial activities involving the production and distribution of goods and the provision of services. It is a consumption tax because it is borne ultimately by the final consumer. It is not a charge on companies. It is charged as a percentage of prices, which means that the actual tax burden is visible at each stage in the production and distribution chain. It is an indirect tax, in that the tax is collected from someone other than the person who actually bears the cost of the tax (namely the seller rather than the consumer).

As VAT is intended as a tax on consumption, export (which are, by definition, consumed abroad) are usually not subject to VAT or VAT is refunded.

(Bhattari, Koirala & pushpa Raj Kandel 2007:P321)

According to economy watch website,

“Value Added Tax popularly known as ‘VAT’ is a special type of indirect tax in which the sum of money is levied at a particular stage in the sale of a product or service.”(Source: www.economywatch.com/business-and-economy/vat.html)

According to Wikipedia Website,

“Value added tax (VAT), or goods and services tax (GST), is tax on exchanges. It is levied on the added value that results from each exchange. It differs from a sales tax because a sales tax is levied on the total value of the exchange. For this reason, a VAT is neutral with respect to the number of passages that there are between the producer and the final consumer. A VAT is an indirect tax, in that the tax is collected from someone who does not bear the entire cost of the tax. To avoid double taxation on final consumption, exports (which by definition are consumed abroad) are actually not subject to VAT and VAT charged under such circumstances is usually refundable.”

(Source: en.wikipedia.org/wiki/value added tax)

According to Rup Bahadur Khadka,

“Value added tax is not an additional tax, but has replaced taxes such as sales tax, hotel tax, contract tax and entertainment tax that used to be levied on the sale of goods and services.” (Khadka, 1997:P11)

According to Encyclopaedia of taxation and tax policy,

“Value added Tax is a broad Based tax on Business designed to measure net value generated in a country.” (Pushpa Raj Kandel,2004:P15)

From the above definition, it is obvious that VAT is an indirect tax which is the newest and significant experiment done on the modern tax system. Like its predecessor, i.e. the sales tax, VAT is also levied on the sale of goods and services (GST). VAT is a broad based tax; it is imposed on Producer, wholesaler, retailer and consumers also. It is related to both the goods & service. Accordingly, it measures net value generated in a country, i.e. GDP. As it covers the value added to each commodity by a firm during all stage of production and distribution. It is a modern tax system to improve the collection of taxes, to increase efficiency and to lessen tax evasion.

VAT is a modern and scientific tax system. It is not similar to customs, duty or sales tax that has borne the traditions or historical heritage. It is not a tax that has been improved and amended and accordingly inserted and deleted. It is a tax of the 21th century since it is highly developed and refined. It is a tax that suits the present speed of knowledge, development and skill. Moreover, it conforms to the present context of liberalization, privatization and globalization. It is easily adaptable with the open economy system and matches with the private sector and the market economy of the present day. It is tax that is transparent and has an in – built system of self- control. There can be no difference of opinion on the above facts.

In summary, the value added tax system is designed to address various problems associated with the conventional sales tax system. It is a tax that has developed as an alternative for the traditional sales tax. That’s why it is also called improvised version of sales tax (IRD & VAT project,2001:95). As clarified by Chandra Mani Adhikari, it is also an improved and reformed sales tax (Adhikari, 2003:6). In sales tax there is no provision for input tax credit, which means that the end consumer may pay tax on an input that has already been taxed previously. This is knows as cascading and lead to increases consumer tax and price levies, which increases the rate of evasion and can be detrimental to economic growth. In contrast, the vat that has been levied in the previous level can be deducted while paying taxes on the later levels. It has a special system where a person trying to deceive tax will be caught on either one of the subsequent levels. Therefore the trend of tax evasion is highly discouraged.

2.2 ORIGIN AND DEVELOPMENT

Value added tax, a recent innovation in the field of taxation, is being a major step in the process of tax reform in many countries in the world. Such widespread popularity of the VAT in Last some year has become one of the most astonishing phenomenon’s of publics finance. The evolution of VAT is the most significant event in the history of commodity taxes and the speed with which the value added tax has spread around the world is unmatched by that of any other tax in modern time (Shoup, 1988:139).

While going to the origin point of the VAT, it was proposed for the first time by Dr. Wilhelm von siemens for Germany in 1919 as an improved turn over tax. The improvement consisted in the subtraction of previous outlays from taxable sales with the result that the tax base of each firm would be reduced to the value, which is added to the product (Sullivan, 1965:12). Thereafter in 1921, Prof. Thomas S. Adams suggested the tax for the United States of America to replace the existing corporate income tax. Further, same tax was recommended in 1949 by the Shoup Mission for the purpose of reconstructing the Japanese economy by avoiding the existing defects of the turn over taxes. These proposal and recommendation won’t come into the practice. Argentina and Brazil instead, introduced a Partial Value added form to the existing manufactures sales tax respectively in 1935 and 1948 by allowing manufactures to tax pay on the excess of sales over their purchase. However VAT was not actually introduced by any country till 1935. Thus, the development of VAT remained limited only in theory up to the early years of 1950s.

In the real practice of VAT Started since 1954 in France, however it covered only the industrial sector and was designed only up to the wholesale level. After a gap of six year, Ivory Coast became first follower of France when it adopted VAT in 1960 next African country; Senegal also implanted VAT since 1961. VAT in these both African countries, wasted to import and manufacturing stage only. Since the 1960s VAT becomes a popular subject matter of taxation in many countries in the year of 1968, France redesigned the existing VAT system and extends it to the retail level. Germany also adopted VAT in the same year. Since 1969, VAT was the operation in Netherlands and Sweden and also other three Ecuador, Luxembourg and Norway included VAT in their tax system. Vat was also effective in Belgium and Ireland since 1971 and 1972 respectively. Thus Vat was suggested and implied for the first time.

Vietnam was the first countries in Asia to introduce VAT, which introduced it in 1973. Pakistan introduced VAT in 1990 as a first among the SAARC countries. In this process, Nepal adopted VAT since 1997. However, India is the biggest country in the SAARC has been following only MOD VAT since 1996s. The basic purpose of this kind of system is to relive inputs from taxation so that production distortions due to taxation are avoided. In the system of MOD VAT, the excise duty and countervailing duty of customs in respect of inputs used in manufacturing process are allowed to subtract from taxes on outputs. Further, American tax system has not included VAT at until now.

As the experiences show, VAT still has not became a perfect substitute for other takes like excise duties, special consumption tax etc. this further implies that VAT has not caught the fancy of the extent as it is claimed in theory. So, far as developing countries are concerned, the system of VAT adopted is less neutral and less comprehensive. Therefore, most of the developing countries are facing problem of tax administration, tax evasion and high cost of collection.

Besides, VAT has gaining a growing attraction in both the developed and developing countries. The countries adopting VAT are list as following.

Year of introduction	**Name of countries**
1954	France
1960	Ivory coast
1961	Senegal
1967	Brazil, Denmark
1968	Germany, Uruguay
1969	Netherlands, Sweden
1970	Ecuador, Luxembourg
1971	Belgium
1972	Ireland

1973	Austria, Bolivia ,Italy, United, Kingdom
1975	Argentina, Chile, Columbia, Costa Rica, Nicaragua
1976	Honduras, Israel, Peru
1977	Korea, Panama
1980	Mexico
1982	Haiti
1983	Dominican, Republic, Guatemala
1984	China
1985	Indonesia, Turkey
1986	Morocco, New Zealand, Niger, Portugal, Taiwan, Spain
1988	Hungary, Philippines, Tunisia
1989	Japan, Malawi
1990	Iceland, Kenya, Pakistan, Trinidad and Tobago
1991	Bangladesh, Benin, Canada, acacia South Africa Egypt
1992	Algeria, Azerbaijan, Belarus, EI Salvador, Estonia, Fiji, Kazakhstan, Kingie Republic, Moldavia, Russia, Tajikistan, Thailand, Turkmenistan Ukraine, Uzbekistan
1993	Burkina Faso, Chez Republic, Mongolia, Paraguay, Poland, Romania, Slovakia, Venezuela
1994	Bulgaria, Finland, Lithuania, Singapore, Tanzania, Western Samoa, Madagascar, Nigeria
1995	Gabon, Ghana, Sri Lanka, Switzerland, Zambia Malta, Mauritania, Togo, Latvia
1996	Albania, Guinea, Uganda
1997	Congo Republic, Nepal
1998	Croatia, Mongolia, Tanzania, Bhutan
1999	Cambodia, Cameroon, Mozambique, Netherlands, Antils, Papua New Guinea, Slovenia
2000	Australia, Chad, Macedonia, Namibia, Sudan
2001	Ruwanda, Botswana
2002	Lebanon
2005	India*

Sources:VAT Project office (Revenue administration support),IRD,IRD/DANIDA, 2009:3-4)
India has implemented modified VAT 1986. This system is not exactly a VAT system. This system was introduced to refund excise duty paid on inputs.

2.2.1 VAT in context of Nepal

Immediately after the restoration of the democracy and multi - party system in Nepal. Nepali Congress led government with Majority mandate from the first election, formulated the eight five year plan (1992-97) with the development goal and philosophy. Because of the various reasons, such as increasing flow of public expenditure on the regular and development heads, widening resources gap, narrow based and higher leakage sales tax, intensified people aspiration and ambition etc, the plan has some indication of the tax reform.

Subsequently, the state minister of finance, Mahesh Acharya in his annual budget speech of

1992/1993 announced VAT would be introduced experimentally, first of all, on some selected commodities which were around nine viz, beers, biscuits, cigarette, noodles, liquor, soft drinks, vegetable oils, vegetable ghee and woollen yarn.

Besides the budget speech of F/Y 1993/94 extended its complements toward VAT saying that “To make sales tax as a principle source of revenue mobilization, government attempts will be directed to change the sales tax into VAT gradually.”

Immediately the governments in September 1993 setup the task forces for VAT in the sales Tax and excise duty department to work the prerequisite preparation for and early introduction of VAT. Since 1993, USAID had provided the financial assistance and Harvard Institute for International development of the Harvard University USA had facilities the technical assistances to Nepal government in order to prepare the legal, physical and systematic environment for introducing VAT. Until 1994, the task force drafted a VAT act and made other few studies on related matters.

Because of absence of majority mandate to any national parties, the parliament became hung after the mid poll of 1994. Then, the leftist party, CPN (UML) formed the minority government. The government had given continuity to the VAT’s preparation within 1995, although the UML’s minority government did not show their commitment to implement the VAT by saying “To implement VAT in Nepal needs more studies”. The government dropped VAT through annual budget speech of 1994/95. Then, the taskforce was dismissed and USAID was dismantled. Immediately, the government setup as a task force on the re-observation of Nepalese tax system headed by Dr. Madan Kumar Dahal and assisted by Dr. Rup Bahadur Khadka. After re-observation of Nepalese tax system, the task force reached the conclusion that “there isn’t any other reliable measure without changing the existing sales to VAT.”

After nine months, the UML’s minority government could not get suitable voteof confidence therefore, the minority government fell down. Then, the country had new government formed by the coalition of Nepali congress, Rastriya Prajatantra Party and Nepal Sadabhawana Party in September 1995. Finance minister of collation government, Dr. Ram Saran Mahat announced in the budget speech of 1995/96 that VAT would be introduced from the following fiscal year in apparent to replace sales tax in Nepal. In 1996, the VAT act 1996 was approved by the parliament.

After eighteen months Nepal had another new coalition government of RPP, UML and NSP. The budget speech of 1996/97 presented by financed minister, Rabindra Nath Sharma geared up and announced that VAT will be implemented from Mangsir 1, 2054 in Nepal.

After achieving majority by Nepali congress in general poll, finance minister Mahesh Acharaya has committed that full fledge VAT would be effective from Bhadra 1, 2056. Now, full VAT system is effective in the country.

2.2.2Need to Introduce VAT in Nepal

Since Most industries enjoy tax holidays and most services are out of tax net, trade alone remained the vital sector for tax ,in fact one study had shown that about two third the government revenue was generated through trade .But Nepal's trade relied on rent seeking activities. Most of the revenue was generated through arbitrage activities, which Nepalese trade to. This trade was prone to under invoicing, fake book keeping associate sales etc. Tax Liability was not proportionate to actual transaction.

In order to increase government revenues an attempt should be made to widen the base of commodity taxes, as then, the sales tax was narrow based. As the sales tax is basically collected at the import/manufacturing point, it does not cover value added through distribution at the wholesale and retail levels. So, that the government of Nepal preferred a modern, efficient and neutral tax likes VAT to get rid of anomies. As VAT covers extensive goods and services, the tax base is much broader. Even a small rate of tax can provide very high yield of revenue, there is no doubt that revenue can be maximized through system of tax, which has low rate but high yield. That's why, there was no choice but to introduce VAT in Nepal to generate revenue required for improving its deteriorating macroeconomic performance.

VAT will not only bring the value added at the wholesale and retail levels under tax net, but also will minimize the problem of understatement of import value ex- Factory price due to the "catch up effect". Under the VAT any understatement of taxable value at the import/manufacturing point would be corrected on subsequent sales since the credit for sales taxes paid on purchases would be correspondingly lower. Under such condition, taxpayers would not be encouraged to be involved in illegal activities such as the understatement of taxable value. Further, as VAT would be levied right through the retail stage, taxpayer would think that they caught at the later stage if they evade tax at an earlier stage. Thus VAT would broaden the tax base which will make it possible to reduce further rate of various taxes, thereby making the tax system economically more neutral and efficient.

A good tax policy should have necessarily some virtues that simplicity, elasticity, broad base, low rate, fair, transparent, easy to administer etc. Which is the existing system lacking. Nepal's tax administration is applying custom, income tax, sales tax its level of efficiency is much to be desired. Widespread use of discretionary measures and lack of transparency manifest administration in day by day. It has resulted into arbitrary assessments, harassment of genuine and taxpayers and provides opportunities for corruption. It is there for, necessary to effect change in all aspect of taxation (i.e. policy, law, procedures and administration) in order to implement tax reform in a meaningful way. The introduction of the VAT provides an opportunity to sweep away the cobwebs and revamp a substantial part of the tax administration.

Globalization has forced many governments to change their economic policies including tax policies, in the recent years. The emergence of multi-lateral intuition like GATT or WTO have necessitated members countries to reduces custom duties as per with international community leading to competitive trading. Any reduction in prevailing rate of taxes would definitely require same amount of revenue from other sources of tax. In this respect, VAT is considered an alternative to make up for the revenue loss from the reduction in other taxes.

Another reason for adopting VAT in Nepal is the pressure of donor countries. Almost 85% of Nepal's development financing is met by foreign loans, grants and aids. A poor country like a Nepal is not in a position to ask for more development aid on the ground of poorness. The change in the structure of foreign aid of Nepal over years itself reveal this fact. Many countries are now competing with the same amount of fund not in terms of poorness but in terms of fiscal prudence. This has put pressure in each government to keep their economy in order so that fiscal disciplines are maintained. Donor countries would like to see that enough effort is put to mobilize internal resources so that HMG is able to match the development financing. The IMF under its enhanced structural adjustment finance (ESAF) program has put the implementation of properly the VAT as conditionality. In every country where it has been implementation properly the VAT has proven itself as a revenue productive tax.

2.3 Origin of Destination Principle

While considering the international trade, the origin and the destination principle have greater significance. Choice among these two principles largely depends on the goals and the policies of nation, accession to international trade, computing method and the type of VAT. In case of the international trade, two serious alternatives appear while implementing VAT in country. They are taxing all domestically produced goods including exported ones and exempting all imports or taxing all the imports and making exemption or all exported goods and services to the foreign countries.

2.4 Origin of Principle

Under this principle, goods and services produced in a country are subject to tax at the place where they are produced or rendered, where ever they are consumed, and the goods and services imported from the abroad are beyond the tax base. Hence this principle is in the favour of imports and against export where there is open border and cross country trade. Thus this principle affects BOP of the country negatively specially for those who have a poor performance in the world economy. The principle could be followed, with appropriate changes in the exchange rate, but countries are reluctant to attempt this approach (shoup1988:143).

As the country can enforce jurisdiction over firms located within its jurisdiction, the principle is much simpler and there would be no export rebates on sale for delivery within the common market countries, rather each country would give credit or tax imposed in the country of origin. Under such circumstances, the origin principle has gaining more importance in EEC countries to achieve the ultimate objectives. The three methods – subtraction, adding and tax credit are equally well adopted to use of a single rate origin-principle value added tax with respect to exports .imports, in contrast are bound to present a difficult problem for the origin principle if the tax credit method is used (Shoup, 1969:263). Administrative complexity widen when the tax credit method is adopting along with an origin-principle VAT having different rates at different stages.

Initial adoption of origin principle requires that the VAT rate should be more or less uniform among the countries, otherwise until such time as exchange rates or relative price levels are adjusted, manufacturers in the low – tax countries will have an advantage over those in the high tax countries, which are unable to protect their firms by tariff barriers with in a common market area (Due,1976:119).also, the principle of origin does not need any adjustment among subtraction and addition to reach the goal of taxing only domestic value that is added to the foreign imports at the tax rates identical to those applying to similar values added to the domestically produced goods. This principle will have negative impact for most of the developing countries where the tourism has significant importance and the governments are intended to encourage tourism and domestic purchases by tourists. Further, the origin principle converts into the destination principle if the importing country simply allows credit for the tax paid in the exporting country, in the sense that the rate of tax of country of importation determines the combined tax of both countries.

2.5 Destination Principle

Destination principle includes all the imports in the tax net while exports are free from tax. As, the principle taxes imports and exempts exports. It will have favourable effect on the country's balance of payment (BOP). Under this principle, tax would be collected at importation and firm would receive credit for this tax and refund when the products are exported. This means tax levied on the importation of the basic law materials, semi-manufactured good etc., which are imported for the production in the domestic market will be refunded when the product I exported. Indeed, by principle, no tax is collected upon importation at all, other than by ultimate user. The board result is that the relative ability of one country to another will be unaffected by a destination arrangements which treats imported and home prepared goods. Thus, neutrality, one of essential features of the good taxation, is provided by the destination principle by means of no discrimination between imported and domestic products.

VAT is universally established on a destination basis, imports being subject to tax at the time of importation (but not necessarily at the same rate) and on subsequent sales and exports being free of tax with full refunded of all taxes paid on previous transactions in the good in question. At the given exchange rates, the destination principle is the most satisfactory whereby to protect the country's position in the world market and ensure that within the country imports are not favoured over domestic goods (Due, 1796:119). Destination principle can be implemented easily and precisely for both rebate of cumulated tax on exports and compensating tax on imports. Under the destination principle, tax credit method is superior to other two, since it provides the precise information on cumulated tax paid without breaking the credit chain. Administration simplicity and the non - discrimination are main reason for the popularity of the destination principle. However, this principle does not function smoothly in a common market area when the fiscal frontiers are abandoned. Difficulty arises to enforce payment of a tax when the sales are made to an individual.

In conclusion, destination principle is more appropriate for a country having consumption type of value –added tax with the tax-credit method of consumption. Special benefit by this destination principle can attain by those country who have open boarder and cross- country trade and less competent in the open market.

2.6 Type of VAT

There are several bases to classify the different types of VAT. However, the classifications of VAT on the basis of the treatment of capital goods are much more important. Considering the treatment of capital good, the following classification has been made in board sense.

2.6.1 The Gross National Product Type

The base for this type of VAT includes capital goods along with the value added on the other raw materials, semi-manufactured goods, etc, purchased from other firms. Hence, under this variant, capital goods purchased from other are not allowed to deduct from sales while calculating the tax base. Thus, the base of VAT consists of consumption and gross investment, which is equivalent to gross national product (GNP). The tax is therefore equivalent in its coverage, to a retail sales tax, which includes in its base durable capital goods.

$$\text{Base of VAT} = \text{GNP} = C + I_g$$

Where, C = consumption, I_g = Gross Investment

2.6.2 The Income Type

Under the income type of VAT capital goods purchased from other firms are not deducted from the tax base, however, the depreciation in the subsequent years are allowed to deducted from the tax base. Similarly, it requires that an excess of year –end inventory over beginning inventory be included in the tax base and allows an excess of year beginning inventory over yearend inventory to be ducted, (shoup,1969:252). Thus, tax base under this variant, includes consumption and net investment, which is equivalent to the net national product (NNP).

Therefore, tax base is given as,

$$\text{Base of VAT} = \text{NNP} = C + I_n$$

Where, C = consumption, I_n = Net Investment

2.6.3 The consumption Type

All capital goods purchased from other firms in the same tax year allowed deducting the sales value while calculating base under the consumption type of VAT. Though, depreciation in the subsequent year cannot be beyond the tax base. As the consumption is only the base of VAT, this type is known as the consumption type. Under destination principle, this type of VAT has an identical base with the retail sales tax on consumer goods and services. No distinction is made between parts and materials physically incorporated into the product, supplies and fuel, and durable capital goods.

Among these three types of VAT, the GNP type has broader base than the remaining two and has received serious consideration in various countries. In GNP type both capital goods and depreciation goods are under the tax net while the income type exclude depreciation and consumption type exclude capital goods from the tax base. In the recent year, the consumption type of VAT has gaining popularity in several countries in Europe and elsewhere. The reasons for the popularity of this type are that this variant does not affect decision regarding investment and growth since it relieves investment from any tax burden (Lindhlom, 1970:1180). Since the tax does not discarnate against capital intensive technique in favour of labour incentives technique, there is no need for a firm to switch over from capital to labour incentives methods KHadka,1989:3). But GNP type of VAT discourages firm to use capital incentive method of production and encourages using the method, which do not involve frequent year to year fluctuation in physical volume of inventories. More ever, this GNP type creates a substantial disincentive for saving and investment for which reason the tax is not accepted by the countries. Room an economic growth perspective both the income and gross product VAT has an anti investment basis (Crawford, 1993:6). The distinction between the purchase of capital goods and intermediate goods is not needed under consumption variant, which is essential under other two variants. The income type also needs the consumption of depreciation in subsequent year, which further complicates administration. Thus consumption variant is attractive from the point of tax administration even from the consideration of foreign trade; consumption variant is more attractive than the income variant since the former is compatible with destination principle and latter with origin principle. Thus, the consumption variant is most desirable than the other two variants in several respects.

VAT can also be classified on the basis of the vertical coverage through production and distribution stages. Under this classification extent of vertical coverage forward from manufacturing has more practical importance which has three subdivisions with different bases; firstly, the value added principle may be used within the manufacturing sector only, with tax applying to each manufacturer on his value added but not by wholesalers or retailer, except to a limited degree. Secondly, the tax may be extended through the last wholesale transaction usually called a pre- retail VAT. Lastly VAT may be extended through the retail level from the earlier stage of production. This type of VAT is known as comprehensive or full-fledged VAT. The same classification next type is based on the extent of vertical coverage backward from manufacturer. This type, however, creates administrative difficulties due to the large number of small establishments and scattered units.

2.7 Method of computing VAT

Value added tax can be collected by using the different methods of computation, however the choice of the appropriate methods depends basically on the type of VAT employed and the principle under which is adopted. The VAT can be computed by employing any of the three methods: i) Addition method, ii) Subtraction method, and iii) tax credit method.

2.7.1 Addition Method

Under this method, value added is the total sum of the factor payments made by the business firms, which is equivalent to the gross income received by the factors of production. The tax base is computed by adding the payments made by the firms to factors of production employed in turning out of product, such as wages, interest, rent, royalties and profits (Sullivan,1965:7) thus, VAT under addition method is the function of the total factor payment as given by:

VAT =f (W+R+I+P),

Where, W=wages, R =Rent, I= interest, P = Profit

If the firm constructs its own capital good rather than purchasing it, this addition method captures the value added by the firm. The capital method is readily applicable to the income type but clumsy for the consumption type of value Added tax (Musgrave and Musgrave, 1976:401). Virtually, no country uses the addition method although; Argentina and Israel have applied it to selected economic activities, such as banking and finance, where value of inputs and outputs is difficult to measure (Cnossen, 1992, 217-218). From the practical point of view, this method is more complex to compute. It would be awkward to use the addition method to compute the base of the consumption type of value added tax, since to the net profit figure there would have to be added depreciation and the excess of opening inventory over closing inventory (deducted, As a part of cost of goods sold in computing net profits), with subtraction of capital goods purchased or produced within the firm and subtraction of an excess of closing inventory over opening inventory (Shoup, 1969:258).

2.7.2 Subtraction method

Under this method value added is determined as net turnover which is obtained by subtracting the cost of materials from sales proceeds (Khadka, 1989:5) and the procedure was used in the Michigan VAT (due, 1976:71). Value added is obtained by subtracting purchase of produced goods from the figure of sales during the period, as given in functional from by, VAT= f (SV - PV)

Where, S = Sales Value, PV= Purchase Value

This method of calculating VAT is suitable for this consumption variant of VAT. This method is not well suited for discrimination among types of consumer goods but it needs not any adjustment to operate correctly for imports under the origin principle. Same thing also happen to the addition method. However, under the destination principle, these both methods of direct calculation cannot supply the information needed to compute precisely the exports rebate or the import compensating tax, where there is not uniform rate to all stages of value added of all goods and services.

2.7.3 Tax Credit Method

Tax credit method also known as the invoice method and uses an indirect subtraction technique to compute the tax liability. Value added such as is never calculated at all, in this method but the effect is exactly the same if the figure was calculated and the tax rate applied. Since, the firm deducts the amount of the tax paid on its purchases during the period from the figure calculated by applying the tax rate to its figure of taxable sales for the period. Under this method, tax payers are allowed to subtract the taxes already paid by their suppliers and passed on to them from the gross tax liability which is levied on the total value of their sales. Thus, in contrast to the subtraction method, which deducts purchase from sales and levies taxes on the difference, tax on purchases is subtracted from the tax on sales under the tax credit method (Khadka, 1989:5). Hence net tax liability is given by,

VAT=f (outputs – inputs) = tax paid on sales – tax paid on purchase purchases.

Among the three methods of computing VAT the tax credit method is widely favoured in the countries of the European Economic Community and elsewhere. The invoice method is used generally in European countries and constitutes advantages of the value added approach, especially in countries where tax compliance is otherwise poor (Musgrave, 1976:402). The tax credit method is so superior to the other method in terms of the application and enforcement, as well as adaptability to various rate modifications that is now universally employed. The tax credit method can be especially useful it is desired to reduce the rate of the value added tax at some stages in the production and distribution process, say the raw materials or farm products stage, for administration reasons without reducing the total tax paid on total value added (Soup, 1669:259). However this tax credit method fails to give credit for tax paid prior to except that is given to either of pre-import domestic stages except the first stage, because the tax credit chain is broken. The credit method encounters still more difficulties under an origin principle value added tax that imposes different stages simply for administrative reasons. Beyond these positive and negative aspects of tax credit method, it has a power to make the overall rate depend on the rate imposed at the last stage o production and distribution, whatever may be the rates at various earlier stages. The method of calculating VAT liability under different method is shown in the table below.

Table -1

Calculation of VAT liability by different methods (10%VAT)

Stage of production and distribution

		Manufacturer	**Wholesaler**	**Retailer**	**Total(Rs)**
A.	**Addition Method**				
	wages	1000	550	750	2300
	b. Rent	300	150	150	600
	c. Interest	150	100	50	300
	d. Profit	350	200	250	800
	e. value added (a+b+c+d)	1800	1000	1200	4000
B.	**Subs traction Method**				
	a. Sales	8600	9600	10800	29000
	b. Purchases	6800	8600	9600	25000
	c. Value added (a-b)	1800	1000	1200	4000
	d. VAT liability (10% of c)	180	100	120	400
C.	**Tax Credit Method**				
	a. sales	8600	9600	10800	2900
	b. tax on sales	860	960	1080	2900
	c. Purchases	6800	8600	9600	25000
	d. Tax on purchases	680	860	960	2500
	e. Net VAT liability(b-d)	180	100	120	400

Note: All sales and purchases are exclusive of tax and figures are arbitrarily assumed.

Thus the tax credit method has the following major benefits over the two types of VAT computation.

I. In the tax credit method, tax liability is attached to transaction that makes it legally and technically superior,

II. Tax Collection is easy,

III. Cross-Checking is possible,

IV. It provides the benefits of catch up effect that makes under evolution and evasion impossible,

V. There will be no loss of revenue due to the exemptions granted to the small traders,

VI. It never demands for the calculation of value added total tax,

VII. Liability entirely depends on the rate on the last stage, so rate differentiation is possible for the same revenue field.

This mechanism is further desirable since it inputs an equal burden of taxation on both imports and domestic products, irrespective of channels of distribution and proportion of value added at various stages. Thus the tax credit method is desirable for several reasons and has been adopted by many countries of the world.

From the table -1 it is clear that VAT liability calculated by any of the three methods is same that is Rs.400. In the table VAT rate is same that is 10% for all method. However, if there is rate differentiation in different stage VAT liability will differ for different method although, the change in the VAT liability will be same under both the addition and subtraction method, as there is same amounts of value added at each stage of production and distribution. Assuming that the transactions (Figure) presented in the table are for the economy as a whole in a specified period of time, VAT of 10% rate gives Rs 400 as tax under the first two methods having the amount of value added Rs4000. In tax credit method value added, as such is never calculated, however VAT liability exactly equal to that by other methods. Thus, VAT is levied on the basis of value added but not directly, calculation of VAT liability under the tax credit method is shown in table-2.

Table-2

Calculation of VAT liability by tax credit method (VAT rate is 10%)

Stage of Production and Distribution

	Farmer	Manufacturer	Wholesaler/ Dealer	Retailer
Types of product	Sugarcane	Sugar	sugar	Sugar
Purchase value (a)	0	200	400	450
VAT paid on purchase(b)	0	20	40	45
Sales Value (c)	200	400	450	510
Gross VAT liability on sales (d)	20	40	45	51
Net VAT liability(d-b)	20 - 0=20	40 - 20=20	45 - 40=5	51- 45=6
Actual sales price (c+d)	220	440	495	561

Note: Figures are estimated arbitrarily and both the sales and purchase value exclude tax liability.

Here, for the sake of simplicity, the purchase value of the farmer is assumed zero. As shown in the table -2, each seller calculates the gross tax by applying the given tax rate to his sales value and then gets net VAT liability by subtracting the amount of VAT liability paid by seller at different stages equals to the gross VAT liability on sales with the same VAT rate (as indicated in the table), so far as tax credit chain is not broken. Unlikely the remaining two methods, in the tax credit methods, there will be no change in total VAT liability by the rate differentiation in earlier stages, unless tax rate on last stage is changed.

A 10% VAT rate through all the stages gives same VAT Liability that is Rs.40 under both the subtraction and tax credit methods. When the VAT rate is increased up to 12% at manufacturing stages; remaining the same initial rate at all other stages, the tax liability calculated by subtraction method increased by Rs. 25 (that reached to Rs.45). However, there is not any deviation on the total tax liability calculated by the tax credit method. This is clearly shown in the following table-3.

Table-3

Calculation of VAT Liability under subtractions and tax credit methods

Production and Distribution Stages	Sales value (Excluding VAT)	Value added	VAT Liability	
			Subtractions Method	Tax credit Method
A. 10 percent VAT at each stages				
Farmer	200	200	20	20-0=20
Manufacturer	300	100	10	30-20=10
Wholesaler	350	50	5	35-30=5
Retailer	400	50	5	40-35=5
Total	*	400	40	125-85=40
B. 15 percent VAT at manufacturing state and10 percent at all other stages				
Farmer	200	200	20	20-0=20
Manufacturer	300	100	15	35-20=15
Wholesaler	350	50	5	40-35=5
Retailer	400	50	5	45-40=5
Total	*	400	45	140-95=45

***** Here, corresponding sum has not any significant meaning.

Note: Figures are arbitrarily assumed.

2.8 Tax- inclusive versus tax- exclusive prices

There are two alternative ways of applying the tax rate on prices. The tax is applied to the figure of sales exclusive of tax, or inclusive of tax. If the tax rate is applied to the figure, after fixing the price of the product at first, the method is called the tax exclusive prices. However, separate requirement of tax statement and the prices of the product are not essential. But tax-inclusive price requires the application of tax rate to the whole figure and further it demands the amount of tax itself into the tax base again. For example, with a 20 percent tax rate, the tax on an item selling for Rs.100 net of tax will be Rs.20 (before deducting tax paid on purchase) with the tax-inclusive method (since the tax element is itself subject to tax).

France used the latter method for a long time but has recently moved to the tax exclusive method in conformity with the ECC directive (due, 1976:96), Rs.25 with tax inclusive method.

The tax-exclusive method has a great advantage of simplicity and greater ease in forward shifting of the exact amount of tax. The effective tax rate is clearly revealed. The inclusive method is confusing and has no possible merit, except to yield more revenue at a given nominal tax rate. Thus the tax-inclusive method is only to get greater yield with a lower tax rate, however neglected basically on the ground of administrative difficulty.

2.9 Structure of VAT

2.9.1 Tax Base

The tax base may be defined as the set of incomes on which direct taxes, and transactions on which indirect taxes are levied. Tax base in other words, is the total pool, which the tax authorities can taping levying a tax. Theoretically, taxable base of VAT captures all types of expenditure on final consumer good. High revenue productivity, one of the major features of VAT is due to its broad base. The tax base of VAT depends on its coverage, which does mean that what kind of goods and services or business transactions is included into the tax base. Taxable transaction and taxable coverage both come into the coverage of VAT. Taxable person are those who independently engage in supplying goods and services which taxable transaction broadly the suppliers mad by the persons engaged in the industrial and commercial activities.

Tax base explains whether a VAT is levied on all goods and services or on some subset of comprehensive base. The tax base for a VAT can be broadly classified in to the following categories:

I. All goods and services,(G+S);
II. Goods and selected services,(G+ST);
III. Goods only,(G)
IV. Consumer goods and services,(G+ST);
V. Consumer goods, selected services and capital goods (G+ST+CG).

Evidently, there is a wide diversity in the size of the VAT base across countries, but the general preference towards abroad-base VAT is clear (Bogetic and Hassan, 1993:3).

It is desirable to include all kinds of goods, services and business activities into the coverage of VAT so that all consumption expenditure comes under the taxable base of VAT. However, in practice, the base of VAT is not found so broad that it covers all the consumption expenditure. A tax base the object to which the tax is the applied, and may be either broad or narrow based. A sale applied to one or few economic goods(resources) is considered “narrow based” while one levied on wide range of goods (resources) is called a broad based sales tax. However the sales tax base may be defined terms of the monetary value of purchased items and terms of the number of unit of the commodity purchased. The former is said it is add volume in nature and the latter is termed a Specific tax. Broad base sales tax may be imposed as one or more than one level of economic activity and hence, they may be either single stage or multistage in nature. Value added tax along with the general retail sales tax and turnover tax come into the broad-based category of the sales tax.

Exemption, zero rating and the tax rate are the major components on which the base of a particular tax depends. In many countries, especially in developing countries, taxing agriculture is not feasible on the administrative ground and economically undesirable on the equity grounds. So, agriculture sector is generally exempted which limits the tax base. Similarly, due to administration and equity reasons only some selected services such as electricity, telecommunication, hotels and restaurant, entertainment etc. are taxed. Further, the construction industries is also subject to exempt in some cases, however the construction materials are taxed. Thus many problems associated with the successful implementation of VAT demands a lesson base and hence ultimately reduce the revenue productivity of VAT.

Legal provisions need to be made to determine the base for VAT in the case of goods and services where the gross selling price is unreasonably lower than the actual market price. In such a case the appropriate tax officials are authorized to determine the base of VAT on the basis of market prices. Such a provision is necessary in order to check tax evasion particularly at the last point of taxation. Basically, in the countries of EEC, the purchase is relieved from the VAT while no allowance is made for depreciation on capital goods from the tax base in subsequent years. In general, the base for VAT on importation is the sum of the import value determined for the purpose of customs duties, tougher with custom duties and other charges, if any paid by the importer prior to the release of goods from custom custody. Different practices for the detraining the tax base in the case of goods and services delivered or rendered for no consideration. There is also a practice in some countries, such as Korea, of excluding from the taxes base value of goods which are damaged, broken or lost before delivery. Thus, tax base may be considerably differ country wise depending upon the economic situation and polices of the country.

2.9.2 Freeing from VAT

Under the VAT, there is a provision of keeping some special goods and services and traders beyond the tax base. Such as provision of VAT reduces the tax base is giving low productivity. However, such a provision is import ant from the view point of an administrative simplicity, equity and there economic reasons. In general, there are there methods of freeing from VAT: exemption, zero rating and threshold.

2.9.2.1 Exemption

Exemption from VAT means that the traders do not play VAT; however, the trader still pays VAT on any purchases and liability. Thus exemption relives the exempt trader's value added from the tax but all his purchases including capital goods are taxed. Exemption does not exclude the items completely from the tax under a VAT and seriously complicates the task of the vendors. "The exemption, at one of the stages, may be granted only to small in that stages as a mean of reducing administrative costs relative to revenue. Exemption of the final product may be intended not as a completed exemption but only as an exemption of value added to that particular product at that final stage. The tax credit can be restricted accordingly. Such a product may be termed quasi-exempt" (Shoup, 1969:261,262).

In general, exemption is granted when a particular product or transaction is desired to exclude from the tax base on the grounds of administrative complexity, social welfare and equity. Certain goods, services very small vendors are exempted basically due to the administrative reason. Similarly, exemption is given to basic necessities like foodstuffs to improve equity aspect by introducing progressively in VAT. However, exemption is not an effective by introducing progressively in VAT. However, exemption is not an effective measure to achieve progressively because some of the rich may spend relatively large some of poor may spend little on necessities depending on their habits, choices etc. exemption of basic necessities their demands and this, thus relative prices, the full beneficial impact of such exemptions are questionable. In the similar manner, there are some goods and services such as goods for children, educational and medical services, cultural activities etc, which demands exemption to encourage their production and consumption however, and exemption needs to be minimized since it creates several undesirable effects.

Firstly, a VAT system with many exemptions gives an incentive to producers as well as consumers to divert their resources from taxed to tax-exempt goods and services, resulting in economic inefficiency. Secondly, exemption has a significant role to make the tax administrative more complicated. Thirdly, the need of separate records of taxed and tax-exempt goods and services creates inconvenience to taxpayers. Firms further selling both exempt and taxable to total sales (Aaron, 1981:7), which increases burden to taxpayers. Fourthly, tax evasion is easier under many exemptions. Fifthly, when exemption is granted, the principle of vertical equity is violated as "as a people identical incomes and needs but with different performance for taxed and untaxed goods pay different amounts in tax" (Scott, 1985:38).lastly it is clearly that there will be loss of revenue by exemption. It is therefore, desirable to limit exemptions only to those goods or services or transactions that are extremely difficult to bring into the net from the administrative point of view.

2.9.2.2 Zero -Rating

Zero rating simply means that VAT is levied at zero percent rates on some selected goods and services. The provision of zero rating in vat is guided by the two basic purchases to vertical equity and social welfare and to stimulate the exportable industrial products. Zero-rating is an actual rate of VAT against which credit for VAT paid on inputs can be climbed and there by a full rebate obtained. Thus it is the full exemption from VAT.
In most of the countries are zero-rated so that the exporter is able to get the refund of tax on his purchases which he has used for producing the exportable items. As zero –rated items or transactions are within the tax net, although effectively they do not attract any VAT, a purchaser will obtain a repayment of input tax borne on his purchase of goods and services, meaning that zero rating items do not bear any. So, it is better to choose zero- rating instead of exemption if the objective to full exemption. Zero-rating is also desirable to tax the poor either not at all or relatively less than well to do. If the zero rates are applied only at the first stage, the tax credit method works satisfactorily, there is no over taxation (Shoup, 1969:260).

A zero rated goods do not bear any tax at all while exempted goods may bear a tax element in its prices. Further, differentiation between the two aspects is based on the administrative work. Business enterprises concerned with the zero-rated goods and services are the formal member like all other the VAT registered members and hence they have to fulfil all the formalities associated with the VAT operation. But business enterprises having the transaction of only exempted goods and services have no concern with the VAT administration.

2.9.2.3 Threshold

Thresh-hold is a point at which an indexation provision becomes operative. Thus, threshold in a VAT is an upper limit beyond which VAT system is in operation. The traders which have low level of transaction will have a low revenue yield relative to the compliances cost and or either they are capable to fulfil all the formalities of VAT. Further, it will create administrative complexity if all the small vendors are registered in VAT. In such a situation, threshold is also an important provision of VAT, which keeps the small vendors beyond the tax net. Thus, threshold is a kind of exemption, which is based on the amount of the transaction but not on the kinds of goods and services. So, threshold must be set on the basis of the nature of the production and distribution system in a country concerned and the extent of education and record keeping at various levels of volume among business firms.

2.9.3 Tax Rate

A VAT may be levied on single rate or a multiple rates. However, the choice is guided by several aspects such as requirement, equity consideration, administration capability, nature of the products etc. even though as these aspects may conflict to each other cannot be achieved simultaneously. Indeed, the lower the VAT rates the higher the costs of VAT administration as a proportion of the yield and hence less productive will be the tax system. A single–rated VAT is desirable UDCs because it makes VAT less costly, easy to comply and administer.

The government may vary tax rates on social grounds (to redistributive income) as the part of fiscal policy to increase or decrease spending. Under a multiple rated VAT, there is a need of classifying commodities into different groups according to their rates so that tax administration becomes more complicated. Further burden to the businessmen and the tax administration is created since businessman have to keep separate records and have to provide more pieces of information while preparing their tax returns. It does not only create inconvenience but become unequal in effect since a dealer may charge different rates on the same goods sold to the different buyers. Similarly, there is the possibility of a dealer charging a higher rate for goods subject to lower rates and vice-versa. The tax system with multiple rates is also economically inefficient. It results a considerable loss in revenue by providing the scope for tax evasion. Since, an incentive is created to producers to substitute their resource from higher rated to lower rated industries to save the net tax liability even when other economic considerations do not justify such reallocations of resources.

The intended objective of the multiple-rated VAT can be achieved only when it is extended through the retail level, but is very difficult to ensure that retailers can apply more than one tax rate. Consequent complications for the operation of the tax are so great, in developing countries, as to led to the conclusion that a uniform rate should be utilized, certainly if the tax extends beyond the manufacturing level. The Korean experience during the past ten years shows that practice is not as simple as theory. From the policy point of view, recent discussions concerning to the VAT has revolved around three issues;

I. Coverage of the VAT,

II. The level and the structure of the tax rate,

III. The treatment of small taxpayers.

In general, suggestions to use differentiated multiple rates has been made to reduce the tax burden on low income group, rate differentiation has been resisted on the grounds that multiple rate do not achieve redistribution objectives and actually complicates administration and compliance. Thus, the introduction of VAT, especially in developing countries, is desirable with a single rate. After the adequate experience and preparation it can be extended to multiple rates to introduce progressiveness by adopting lower rate to the goods of the basic needs, a medium rate to general type of goods and a higher rate to the luxury goods.

2.10 Operation of VAT

2.10.1 Registration

The first step in the actual operation of VAT is the registration of firms subject to the tax and the development of master roll of taxpayers (due, 1975:132). In this process, all the vendors having a taxable business require to register for VAT. Any business enterprises if they desire to register can register voluntarily. However, there is no compulsion to register for small vendors who have an annual turnover below the threshold.

The registration procedure starts with a notice to the potential taxpayers through extensive publicity campaign. Then registration forms are distributed so that the vendors will fill up to be formal member of the taxpayer under the VAT system. Then the registration form is returned back to the VAT department and their coding is made. Thus the registered tax payer may be unknown about VAT in detail so an informative visits needs to be made check whether the details provided by the taxpayers are correct or not. Although all the vendors having the transaction of taxable capacity may not be registered so it is almost essential to make a door-to-door check, especially in developing countries. The newly hired staff of inspectors and enforcement officers can be used for this purpose.

However, vendors may desire to come into the VAT net since an unregistered vendor can neither claim back input tax paid on his purchase nor collect output tax on his sales and hold it until it is required to be paid to the Inland Revenue department. Further, as the traders do not want to appear excessively small in the eye of their customers, they may be intending to register. Though, vendor may hesitate to register due to illiteracy in developing countries. Hence, vendors can be attracting towards VAT registration by providing knowledge, careful checking and penalty system.

Still there is possibility that some vendors may register only in order to use tax credit facilities and apply for cancellation of registration after taking advantage of the facilities, leading to the considerable loss of revenue. In order to check such practices some provision needs to be made in the tax laws. For example, a registered vendor has to remain registered for at last two years in New Zealand.

2.10.2 Tax Invoices

The tax invoice is a crucial document for VAT as it establishes the seller’s liability of tax and the purchaser’s entitlement to credit. A VAT registrant is required to use a tax invoice whenever a transaction takes places, although, it is not desirable to require that invoices be issued, particularly on smaller transaction. However, it is desirable to require that invoices be issued on all sales to other registered firms, and on all sales in excess of a certain monetary sums. In the case of the small transaction made with the unregistered purchasers that is consumers. It is better to use the abbreviated invoice, if this facility is allowed by the VAT administration. In general two types of invoices tax invoices and final consumer invoice are issued. The former is issued to the VAT registered sellers and the latter is issued to the unregistered purchases.

Tax invoices are the basis for claiming the credit of the tax on purchases so tax invoices are needed to issue the sales to registered taxpayer. In general, three copies of each invoice are prepared among which one is given to the purchaser. The remaining two needs to keep by the seller himself so that he could provide one copy the tax administration any time if they demanded for the purpose of inspection and cross-checking. Unlike to the tax invoice, final consumer invoices are not so important and can be deleted and final price may be shown including tax rather than showing VAT and price changed separately. If each sale is entered into the sales book directly, only one copy of such invoice may be sufficient. But in UDC where the public awareness levels low and the tax evasion practice is high, such final consumer invoices also carry a significant role and it must be made compulsory.

However, sometimes invoices are not at all necessary, such as in the case of a self supply, while in some cases they are for all practical purposes not possible e.g. newspaper sales, street stalls, passenger transport etc. that is why, vendors are not required to issue for the supply zero rated goods and services, a supply of goods and services without any consideration, transportation by taxi, street stall sales and padding etc. the self-policing mechanism is served by Vat only when the invoice system is accurate. So, buyers are needed to make responsible for demanding an invoices for their purchases exceeding a certain amount and a sample check of the place of business is needed in order to control tax evasion.

2.10.3 Accounting

Every VAT registered vendor should keep clear accounts of his purchases and sales, which come into the VAT base. The record of all invoices including other information such as the serial number and date of issue, transactions subjects to different rates, the amount changed, self consumed goods etc should be kept fairly so that VAT authorities can review, check, calculate the amount of Vat and tax credit easily. Generally, such records are kept fairly for 4 to 6 years so that can be provided to the tax administration if asked to check its accuracy and fairness. Although the period rating to the preservation of the accounts may depend on, inter related, the provision regarding the period in which the final VAT assessment must be complicated or the case finalized, in case of appeal (khadka,1989;56). It is desirable to make such a period as short as possible because longer the period for the preservation of accounts the more of the burden it puts to the registered vendors. The tax administration is not responsible if any vendor cannot get tax refund due to the lack of proper records.

Accounting system can be made simple and clear by using a separate purchase book to records all the details of purchases and separate sales book, which records all the details of sales. However, in case of the small vendors the cash flow problems can be made simple by allowing accounting for their output tax and input tax only upon receipt or payment. Government can also provide a forum for the accounting purpose to the vendors. However, it is undesirable to prescribe on exact form because record systems differ significantly among the various types of businesses.

2.11 Collection of VAT

There are two major steps during the collection of VAT.

I. Tax consumption

II. Tax return and payment

2.11.1 Tax consumption

Among the three methods of VAT computation Viz: Addition method, subtraction method and the tax credit method, anyone can be applied, however the last one is widely used in the world. Under this method, tax is levied on the total sales of each registered vendor room which the deduction of tax purchases from the tax on sales consists of only the tax levied only goods and services, which are used for the purpose of taxable transaction of a vendor. The net tax liability of a vendor is calculated on the basis of the taxable period, not on the transaction basis.

Sometimes, a vendor’s deductible input tax may exceed his output tax so that the net VAT liability of the vendor will be negative. This contradicts to the general log that the output tax exceeds the input tax because the basis of the former at a particular stage is greater by the amount of value added at that stage than the base of the input tax. In really, not at all the inputs purchased from other firms in a particular tax period are exactly converted into output in the same tax period. Conversely, not all the outputs in a taxable period are solely from inputs purchased in the corresponding period. The former case is responsible for a rising the exceptional results that net VAT liability is negative. However, in such situation, tax administration must be more careful that whether the vendor is trying to evade the tax.

2.11.2 Tax return and payment

A tax return is a summary of the transaction of VAT registered vendor which consists of total purchases, total sales; input tax, output tax, net tax liability etc during a taxable period. In addition to the firm's name and account number, the form includes the following information (due, 1975:140:141).

I. Total sales including transfers from inventory to personal use of the owners,

II. Exempt sales,

III. Zero rated sales,

IV. Taxable sales:[a - (b + c)],

V. The gross tax (taxable sales times tax rate),

VI. Tax on purchases (excluding the purchases for credit allowed exempt related sales), and

VII. Tax due: (e - f).

After filling the tax return from, each vendor requires to submit it and the tax due within the specified period. The payment system having frequent interval is desirable which avoids the accumulation of the liabilities that the vendor cannot meet. Such a frequent interval also provides an even flow of money to the government and smooth out the work load as compared to longer intervals. General practice also shows that the standards tax period is one of month. Usually, payment of VAT is made through banks. Collection VAT through bank is sort of privatization in tax collection. Since, they are used to receiving payments and handling money, using banks to collect VAT, have generally been successful (Jantscher et al, 1991:35).

The processing starts when the returns are received in tax office. Broadly, the processing of returns includes validation, batch, and arithmetical check, posting and balancing accounts.

2.11.3 Enforcement

Enforcement of VAT, is one of the major requirement for the successful operation of VAT, in the sense of ensuring that all the firms file returns and pay tax to the government at given period of time. VAT system can be found more equitable along with the restriction for the tax evasion when the enforcement of adequate records keeping and preserving it for a long time (generally five years). In Nepal records are preserved generally for four years and administrative power to review the records for the accuracy and fairness at any time. Power is granted to tax officials to inquiry, seize and check the records in the case of suspected fraud. In such cases of suspected fraud, tax officials can enter and search the business premises. In addition to that, the tax liability of a VAT payer when they suspect traders may have misreported their tax liability or when returns are not presented at all registered firm with all the firms registered that are required to do so, a system for ascertaining failure to file and pay, techniques for ensuring that the developments as the no fillers are called- do file and pay, and method of doing with hard core delinquents. Enforcement requires an accurate up to date master file of registered firms- with hardcore delinquents who fail to play despite notices and visits (due, 1975:160).

The basic problem arises with the firms who neither file the tax returns nor pay. However, the automatic penalty and interest charges which can be applied simply and quickly are highly effective in encouraging firms to file and play on time. These penalties and interest charges are not criminal penalties but simply charges for failure to file and pay on time and are applied automatically without court action. Further, these are assumed at the time of the check for delinquents and are applied to the firms that have paid between the end of grace period and the cut off date as well as those that have not yet filed.

2.11.4 Penalties

Even stated just earlier, penalties are useful measure to encourage firms to file and pay on time and hence to recoup the revenue losses due to the malfunctions of tax payers actually, penalties are designed to punish the taxpayers who do not follow the legal rule of the VAT system provided by the corresponding authority. Penalties are considered essential, as they create an incentive to taxpayers to deter evasion and non-compliance, for smooth functioning and producing a full revenue potential of a VAT system. However, penalty taxes become inequitable if they are imposed heavily on some defaulters but not on others, so all defaulters should be treated equally.

“The penalties have divided broadly into four forms: automatic financial, automatic non financial, criminal financial and criminal non financial. Some other typical devices for penalties are attachment to bank accounts, revocation of business certificate seizure of property shut down of premises, temporary suspension of trading license, threat of imprisonment, criminal prosecution etc” (tait,1998:319). The severity of penalty can be determined depending upon the type of offence made financial charge are often made for less serious offences.

2.11.5 Auditing

Auditing in VAT system a selective review of the tax payer’s books of accounts and other records including yearend statements, balance sheets, and profit and loss accounts to ensuring that the major area of purchases, sales and stocks are substantially correct, not that the tax payer has filed a perfect return. The purpose of VAT audit is to find out, according to the law and regulations. The actual VAT liability of the tax payers; A VAT audit which is based on the principle of the self-assessment by taxpayers may be integrated with that income tax or may be conducted separately. However, the integrated audit is more desirable and popular. The types of VAT audit may be divided into field audit and office audit where the former includes advisory visits, verification of records and fraud investigation and latter includes desk audits checking the return for arithmetical accuracy and completeness. The office audit is desirable to check each return for probable accuracy, as a basis for selecting accounts for audit.

Several activities and steps which appear in performing the audit are included in the audit management. The audit management is jointly made by the headquarters and local tax authorities coordinating their tasks. Generally, the audit activities include (Sharma, 1997; 40).

I. Searching for the tax payers, who fail to register and file the returns;

II. Reviewing the tax returns, checking the conformity of calculations and verifying the data –inputs, outputs, zero-rated goods and exemption,

III. Selecting the business unit for audit through the establishment of appropriate selection criteria and according to the audit capacity of administration,

IV. Preparation for audit and audit performance,

V. Reporting audit, discussing about audit results, and processing the results for further decision making; and allocation of tasks among inspectors and auditors, audit manual etc.

2.11.6 Computerization

VAT being a modern and scientific tax demands highly efficient administrative efforts. So, computerization may be considered as an essential and an accompanying component in VAT operation. The use of computer facilities are maintains of master file system so that monitoring, administrating and controlling policies of the department can be made efficient. Thus, regardless for their exact form, computers perform several functions:

I. Providing the maser file of registrants, with necessary information,

II. Providing the basic data records of payment delinquency, and so on,

III. Identifying no fillers in each return period,

IV. Balancing accounts,

V. Cross-checking taxes reported as paid by certain firms against the tax return data of others,

VI. Selecting accounts for audits, and

VII. Preparing statistics for internal control purposes and for economic planning and other units of government.

Thus, computers provide a mechanism for the operation of VAT system with a greater efficiency at lower costs.

Although VAT can be implemented even to absence of computerization, as was the case in Europe, it is essential to computerize VAT administration for its effective implementation. The feasibility of use of computers is much greater if the same computers can be used for other taxes and other governmental program. A computer system that does not function properly is far worse than a manual system, since ferreting out the difficulty and correcting errors is very difficult. So, the decision about the choice of computer must be made on the basis of careful analysis of the relative costs of various alternative systems, given the task to be performed, and the relative advantages of the various systems.

2.12 Provision of VAT in Nepalese Act.

In Nepal value added (VAT) was introduced on 16th November 1997. This tax was levied in place of the manufacturing level sales tax, hotel tax, contract tax, and entertainment tax. However it could not be implemented fully until the FY 1998/1999 due to political instability and strong opposition from the business community.

VAT replaces the old sales tax, the contract tax the hotel tax and the entertainment tax. It has been designed to collect the some revenue as the four taxes it replaced.

The VAT is broad based tax as it cares the value added to each commodity by a firm during all stages of production and distribution. It is a modern tax system to improve the collection of taxes to increase efficiency and to less on the evasion.

Section 10: Registration: There should be compulsory registered by each business according to section 10 and the registered no should case in each business transactions.

Section 5: VAT Levied: VAT is levied there transactions.

I. Goods and service provided all over Nepal
II. Imported goods and service
III. Exported goods and service

Section 7: Tax Rate: it is fixed according to financial act of current year.

Section 8: Determination of Tax and collection: The taxpayer should compulsory pay the tax after determining the tax amount.

Section 9: Rebate to Small business: small Scale business need not registered with VAT. If they interested to register with VAT, this facility is available.

Section 14: Invoice: Every registered business has to give the invoice to consumer.

Section 16: Account: every tax payer should keep the account of transactions up to date.

Section 17: Tax Deduction: Every tax payer can deduct the tax amount which is paid initially by the business.

Section 18: Submission of tax statement: Every tax payer has to submit the tax statement after self assessing of tax to the tax office within the 25^{th} of next month, each month.

Section 19: Tax payment: tax payer should pay tax within 25^{th} of next month after complication of each month.

Section 20: Determination of tax by tax officer: Tax can be determined by tax officer due to following cases.

A. Did not submit statement with in time period
B. Incomplete and error statement submitted.
C. Fraud statement submitted.

Section 23: Rights to check and inspection: If any business is running without registering the business with VAT, in this case the tax officer has right to check and inspection of the business.

Section 25: Refund of Tax: Conditions of refund of tax are as follows:

Section 26: Interest: Tax office can charge the interest on unpaid tax amount who failed to pay tax within the given time period.

Section 29: Penalties: Penalties Can be charged due to following reasons;

I. Failure to register with VAT office.

II. Failure to apply for registration with VAT.

III. Failure to show the tax certificate when necessary.

IV. Failure to use the registration number on transactions.

V. Failure to inform to VAT office if any charges occurred within the transactions.

VI. Failure to give the invoice to consumer.

VII. Failure to keep the account up to date.

VIII. Failure to mention the transaction date.

IX. Failure to mention the Value of transactions.

X. Failure to mention the registration number of next party's if it is available.

XI. Failure to submit the statement in the VAT.

XII. Failure to Provide to right to check and inspection.

XIII. Failure to follow the rules and regulation.

Section 32: Appeal: There are sufficient rights to appeal into the revenue jurisdiction by tax payer of any unsatisfied decision made by tax office.

Exemption from VAT

Following goods and services are exempted from VAT.

Group 1: Basic agricultural Productions.

Group 2: Basic need goods.

Group 3: Wildlife and Production.

Group 4: Agriculture commodities.

Group 5: Medicine, Treatment and Health Services.

Group 6: Education.

Group 7: Books, Newspaper, Printed products, Publication and Printin**g.**

Group 8: Cultural and arts services

Group 9: Public Transportation and carrier services.

Group 10: Professional services

Group 11: others

Group 12: Purchases and sales of land and Building

Group 14: Bit, casino and lottery service.

2.13 Value-added tax and other sales taxes.

2.13.1 VAT versus turnover tax

The turn over tax, the earliest form of the sale tax, officers the advantage of simplicity-all transactions are taxed, typically at a uniform rate and the tax yields the maximum revenue for a given tax rate. As the tax is imposed on the gross monetary value of product at multiple stage of business activity, it is multistage and broad based in nature. The turnover tax or cascade tax is levied as a percentage of sales, regardless of value added at each stage of sale right from the initial production of materials to the final sale to the consumers. Thus, the burden of tax as percentage of consumer expenditures very widely on different goods because of the verifying number of transactions involved in different commodities between initial production and final sale to the consumer. Since, turn over tax is proportional to a firm's turn over, gives an incentives to vertical integration, as the tax may make it cheaper to produce more efficiently by an outside supplier. In contrast, value added tax do not provide this artificial inducement to vertical integration so have been very widely adopted in preference to turn over tax. Under the system of turn over tax, taxable value of any commodity depends on the number of stages it passes through the production and distribution process. This makes the larger base for the cascade tax so the revenue productivity is high. Instead, value added tax is less productive since the base is only value-added. Thus a serious advantage of the turnover tax is the cumulative taxation that occurs as goods more through successive stages of production and distribution (Goode, 1984:153).

Since the turnover tax applies to the total value of transaction of the product at each stage of production and distribution, it creates a strong incentive for reducing the economic activities at earlier stage like performing many activities of production and distribution under the single roof. Thus turn over tax encouraged integration and discourage specialization. Such artificially encourage integration result in loss of efficiency and lowers output and growth rate and may in any case lead to the undesirable concentrations of economic power and monopolistic tendencies. There will not be any incentive for integration of VAT system, since the total amount of tax on the product will be the production and distribution system and the taxable prices is always equal to the final prices of the product. Thus from the view point of neutrality VAT is so far superior to the turn over tax.

The turn over tax is comparatively easy to administer as it applies only on gross sales to that there is no need of tax credit. The double-checking and several provision associated which create complicity however makes the tax system transparent, efficient and equitable. Comparative easiness and simplicity also can be found in turn over tax in the view point of tax compliance. But due to the self enforcing feature of VAT, it is more attractive to check the tax evasion. An uneven burden is also created on various commodities by turn over tax and further the burden varies with the typical number of transaction through which a commodity passes on its way to the final consumer. The cascade from the tax also tends to discriminate against domestically produced goods and compares with imports, since the former pass through a large number of taxable sales transactions within the country than the latter. VAT avoids this problem, since the imported goods will either bear tax on their full value at the time of importation of (under the tax credit method) have this value taxed at the first subsequent sale, and then subsequent value added will be taxed in the same fashion as with domestic goods (due,1975: 85). Once the tariff protection is eliminated, the humanization of sales taxes becomes essential in common market Area, which is served by VAT in a satisfactory limit rather than the turnover tax.

In Europe the turn over tax was used after world war first, from the Germany, France, Italy, Belgium, the Netherlands and Austria but has been superseded by VAT. Similarly the many developing countries, the turn over taxes have been replaced by other forms of sales tax.

However, the turn over tax will do less harm where there is little manufacturing and export consists of primary products or the output of integrated enterprises than in countries with more diversified economies (Goode, 1984:154).

2.13.2 VAT versus Manufacturers Sales Tax

Manufacturer's sales tax is levied on the sales volume of manufacturers in case of the domestic product and on the important value in case of the imported product.
Basically, the tax is not levied on the sales to other sales tax registered vendors, in such case of the sellers hade note on invoices the buyers sales tax registration number and particular of the goods. Thus sales tax registered manufacturers could purchase their raw material, auxiliary raw materials and chemical becoming physical ingredients of taxable products free of tax. So the, tax base of a manufacturer's sales tax narrows too much as compared to VAT which coved value added in each stages. The broader base of VAT is not only due to the inclusion of value added of each stage but also due to the coverage of services as well. If the mark-up system is introduced in the tax, it will cover the various costs including transportation and the profit margin of the importers in the sales tax base. MST, however, being a single stage sales tax, will avoid the worst evils of the cascade tax, if it is properly designed. Under the MST, the exclusion of unprocessed foods and many artisans' products-either legally or because of non compliance-mitigates the burden on the lowest income classes. Unlike the cascade tax, MST creates an incentive to the firms to push various functions beyond the point of impacts of the tax in order to reduce the amount of the tax due. Thus, forward integration of the manufacturer is discouraged and helps for specialization. However, when the manufacturers transfer their own activities to dealers and wholesaler, establish artificial; sales depots undervalue sales etc brings inefficiency in the production and distribution channel.

The distribution of the tax burden under the MST is not uniform to various consumer goods, and to the domestically produced and imported goods because of variation in magnitude of wholesale and retail level margin. The variation is haphazard, if anything, the burden will be greater on the basis necessities, which tend to have low margins than on the most luxurious goods on which the margins tend to be high. There is a particular danger of favouring imports, since advertising and other distributive activities with respect to these goods may be formed after the point of importation, whereas the costs of these activities will be reflected in the manufacturers price of domestically produced goods, if they are performed by manufacturers. VAT would put an equal burden on both imports and domestic products since the burden of this tax depends upon the final price irrespective of the proportion of the value added at different stages in the process of import, production and distribution. It would improve the efficiency and competitiveness of domestic products in the international market by relieving exports from taxation.

Under MST, one serious defect, cascading becomes inevitable when goods and services are purchased from registered firms by non –registered firms and supplied again to registered firms. In practice, it is possible many developing countries, where importers directly sell their imports to non registered firms or persons, which maybe raw materials for manufacturing industries. Even the purchase of raw materials from registered firms or primary producers are also taxed, which further extend the cascading effect and hence strikes a growing economic sector. Further, the refund system is not perfect MST. In contrast, VAT does not suffer from cascading or pyramiding effects and it does not affect economic growth negatively.

Under, a VAT, the taxable price always equals to the final sales price of the goods so that the net tax liability cannot be reduced by altering the methods of doing business. So, there will not be incentive neither for vertical integration nor for disintegration. This makes the tax system neutral, which helps VAT to stand superior to the MST. However, the VAT is difficult to administer than the MST. Basically, the difficulties arise due to the provisions like tax credit, refund, exemption, zero-rating, cross-checking etc and further, the taxpayers are in large number than the MST. However the VAT can be made simple and effective by some measures, which are carried by the tax itself. They are:

I. Actual invoice based self assessment mechanism,

II. VAT serves catch-up effects, which make tax evasion likely impossible,

III. VAT has a self policing feature,

IV. Cross-checking of tax liability and credit is possible,

V. Net tax liability is distributed to all production and distribution stages rather than concentrating only in a single stage.

Lastly, to conclude, more advantages of VAT over the MST can be attained when the tax is extended to the retail level.

2.13.3 VAT versus Wholesalers Sales Tax (WST)

Wholesaler's sales tax, as such, is a tax on the sales value of the wholesaler's and hence it has a broader base than the MST since it covers the margins of the wholesaler's into the tax base as well. Although, the significant difference between WST and MST depends on the extent to which wholesaler's sales tax is applied to the sales to retailers. Since the wholesaling is not carried on exclusively by separated enterprises and is done also by importers and manufacture, it is necessary to register all three kinds of enterprises (Manufactures, importers and wholesalers) and collect tax on their sales on unregistered

buyers including retailers and consumers. It has been recommended for developing countries by some well-known experts but it practice has been used only in Portugal and few developed countries, including the United Kingdom, Australia, and New Zealand. An administrative advantage of the wholesaler's sales tax that is relevant for equal treatment is that manufacturers who sell direct to retailers do not need to be taxed on a hypothetical price that is less than the actual price, to be able to complete with manufacturers selling to independent wholesalers (Shoup, 1969:242).
WST encourages manufacturers or importers to sell directly to the retailers or consumers so that product remains beyond the tax net. This result a loss in the revenue one the one hand, and on the other it discriminates against those products by means of competitively advantages, which bear the tax burden, favouring those firms and products which do not play or bear the tax burden. In contrast, VAT does not create such discriminations since it is levied at every stage of production and distribution, and tax evasion is also more difficult. Thus, VAT is neutral among the process of production and distribution, and the consumer choices.

The problem of cascading remains coherent under WST because of imperfect poorly utilized tax credit method whereas VAT easily avoids the problem. Such cascading effect of WST creates less incentives or competitive loss while it fail to provide proper amount of tax refunds on exports. Discriminative effects associated with WST hamper the output and economic growth. Instead of this, VAT being a neutral tax does not distort the growth.

2.13.4 VAT versus Retailer's sales Tax (RST)

Retailer's sales tax applied to the sales value of the retailer so retailers are required to register for sales tax purpose and tax is levied on their sales to consumers or non-registered firms or other persons. Among the all types of single stage taxes, RST is that one which has the broadest base. A retail sales tax in its pure form is the equivalent of a comprehensive consumption type of tax on value added except that it does not offer an option between the destination principle and the origin principle. Like the TT and VAT, RST includes all the services into the tax base, which is not true in case of the MST and WST. Both the taxes RST and VAT with the similar rate and coverage would raise the same amount of revenue. However, the tax is levied only on single under RST and on multiple stages under VAT.

There are no incentives to alter distribution systems most imports and domestic goods can be treated equally, pyramiding is avoided and the desired pattern of distribution can be attained. Thus, RST avoids virtually all the problems associated with the MST because of the imposition at the final sale to the consumer.
The actual amount of tax under RST is not affected by the number of stages through which a commodity passes but depends on the rate and the final price of the commodity. In similar manner, under a VAT system the net tax liability remains unchanged regardless the choice of production and distribution system, since tax is levied only on the value added at each stage.

In addition, some aspects like reliving producers goods from taxation free export from tax and broader tax adjustment are possible and feasible in both the taxes are neutral but RST because there is no possibility for tax being levied on tax since inputs are received from taxation through the suspension technique under the RST while considering the treatment of imported and domestically produced goods. Further similarly appears on the avoidance of the pyramiding problems since vendors need not be apply a mark up on the tax amount levied on earlier stage, under both the taxes. In this regards, RST may be considered a serious competitor of the VAT.

Beyond the various similarities between VAT and RST, there are also some basic differences between them. The collection of retail sales 5tax places the entire impact of the sales tax upon retailers while much of VAT is collected at pre-retail levels. Under the RST, if the manufacturers or wholesalers or importers directly sell to the consumers, the whole tax amount from that commodity is lost, while under a VAT, it will reduce only a part of total tax liability that is the amount of VAT liable at the stage. In developing countries most of the retail traders are small entrepreneurs with relatively inadequate records and a high propensity to evade tax. Thus, particularly in a developing country, the danger of complete evasion is far less with VAT, since any sales can be collected more effectively from typical manufacturers and whole sellers than from retailers.

The only one advantage of RST over VAT is that the number of taxpayers is small however; a significant problem is created because of the large number of small retailers having only limited records. If such very small retailers are kept beyond the tax net from the administrative difficulty, resulting decrease in the tax base is much larger under an RST than VAT. It is because, RST looses entire amount of tax on the sale of exempted seller while such exemption causes a loss of a tax only in a small amount. Taxation on services is difficult under RST than the VAT. In general the services like communication, transport charges, construction etc are not taxed under the RST than the VAT. In general, the service like telecommunication, transport charges, construction etc. is not taxed under the RST. Taxation on such services demands the separation of the services into

1) sales to consumers an
2) sales to business firms,

Which complicates the tax system? If services are not taxed, discrimination will appear which makes less incentive to use goods than services. This distorts the economic choices of both consumers and producers, and unnecessarily accentuates the regressive impact of tax, because the demands for service are generally more income elastic than the demand for goods (Cnossen, 1981:220). Further. RST cannot provide precise amount of tax refund because of the difficulty to identify producer’s goods or consumer’s goods.

2.13.5 Superiority of VAT

From the above comparison, VAT is definitely Mauritius and desirable than TT and other single-stage levies; however the RST is the nearest competitor. VAT is a perfectly neutral tax, which has not any discrimination regarding the producers and consumers choice. Due to the broader coverage of VAT it is more productive, and does not carry any undesirable evils in the economy like others. The provision of VAT like exemption, threshold, zero-rating, refund etc makes the tax system more equitable. It also includes investment and export trade by eliminating capital goods and exports from the tax base. Avoidance of pyramiding and cascading effects is the basic feature of VAT. Cross auditing and self-policing are other important features associated with VAT. In addition, VAT on the basis of origin serves as special benefits to the countries of common market area since neither border checking nor important or export verification or control is needed.

2.14 A Brief Review of previous research Work

2.14.1 Carl S. Shoup (1969) explains Value added tax as the latest and probably the final stage in the historical development of general sales taxation at the national level which is levied on the value added, the difference between the Sales proceeds and the cost of the materials, etc that has purchased from firms. VAT has eliminated the uneven impact of the turnover tax and the manufacturers and wholesalers sales taxes. A comprehensive consumption type of VAT is equivalent to a retail sales tax in its pure form except that the later does not offer an option between the destination principle and the origin principle. Shoup explained the VAT differently in closed and open economy as follows.

Value added tax in closed economy:

1) **Gross product value added tax:** Under this type of VAT, purchases from other firm's taxes are deductible from sales exclude purchase of capital goods which include any assets that will not be used up entirely within the tax year of purchase. Further, depreciation in successive years is not allowed to deduct from the tax base. Thus this is tax creates an incentives to the firms to use that method of production which do not require capital assets and do not involve frequent year to year function in physical volume of inventories. Therefore, tax base = GNP = c + I=W + P + D

Where, c = consumption, I = investment, W = wages, p = Net profit after depreciation, D = Depreciation.

2) **Income type of value added tax:** In this type of VAT, tax base excludes depreciation although purchases of capital goods are not permitted to deduct. Thus,

Aggregate base = NNI = C+I-D = W+P

3) **Capital exemption types of value added tax:** There are two types of VAT which is exempt purchase of capital goods from the tax base in either why.

A. **Wages types of value added tax:** in a two sector economy, the base for this type of VAT is NNI after deducting net earnings from the firm's capital for that year. Therefore, tax base = Yp=Y-P=C+I-D-P = W where, Yp=NNP and Y=NNI.

B. **Consumption type of value added tax:** This type of VAT requires the deduction of full value of the capital goods purchased from the other firms in the same tax year but depreciation are not allowed to deduct in subsequent year. Therefore,

Tax base = C=W+P+D-I.

Value Added Tax in open Economy

In an open economy, considering relative unimportance of the gross-product type of VAT from practical point of view, more focus is given to capital exemption types of VAT.

i) **Wage type of VAT**: Under this type of VAT, in an open economy, the destination principle is suitable as it would require each import be broken down into its wages element and profit element. Similarly, each exported need to be broken down into the same two elements, so that a tax rebate can be given for the value added tax paid domestically at earlier stages on the wages element. These complication are entailed under origin principle, moreover, no tax refunds on account of the exemption of profits will be required.

ii) **Consumption type of VAT:** Considering a two-country world, this type of VAT under destination principle would exempt one country's firm's export sale and would impose a tax on the import purchase of another country's firm's export sale and would impose a tax on the import purchase of another country's firm. This type would be much simple for both taxpayer and administration under destination principle,

Tax base = C=W+P+D-X+M,

Under origin principle, Tax base = C+I = W+P+D-X+M,

Equivalently, W+P+D-I = C+X-M,

Where, X= Exports, M= Imports, I = Capital goods purchase.

In conclusion, consumption type of VAT is regarded superior however; wage type of VAT is simpler than consumption type under the origin principle. While analyzing the computing methods of VAT the author favours the tax credit method, however, the origin principle and the tax credit method are somewhat incompatible, though perhaps not so much. So a country moving to the origin principle need give up the use of the tax-credit method. Lastly, VAT a more productive and neutral tax is also complex and regressive in nature.

2.14.2A study of VAT in developing countries undertaken by the IMF staffs (1973) states that many developing countries have been giving increased attention to VAT as means of rationalization their sales taxes and improving their revenue following the adoption of this form of tax by western European countries. Comparative analytical methodology is being used to analyze the VAT structure of seven developing countries and it covers several issues such as revenue productivity, administrative difficulties and comparison of VAT with other sales taxes. The study considers that VAT can be made neutral only with a comprehensive and uniform coverage. More elastic and revenue productive by a lower rate, case in cross checking, less incentives for the evasion, and superior even than the retailer's sales tax on the ground of neutrality are the good features of VAT, and achievement of these features largely depends on the implementation aspect.

Experience shows that developing countries are adopted to limit the range of the VAT by excluding the most troublesome sectors because they pose different problems. In general, VAT will have faster speed than the GPD trend. Fundamental difficulties in the developing countries arise from the problem of dealing with small taxpayers. VAT is suggested to extend retail level only after getting experience from other sales taxes. Lastly, study considers VAT as a major step in the process of tax reform in the world; however, it may be an additional burden when administrative structure is poorly designed.

2.14.3 Johan F. Due (1976) analyzed the different aspects of VAT, especially, in the context of developing countries through a paper entitled "value added taxation in developing economies". The first part of the study deals theoretical aspect including nature and history of VAT and the next part analyses the implementation aspect in developing countries and makes useful recommendations for its successful implementation.

Theoretical Aspect:

Considering the types of VAT, he states that there are several bases for classifying value added taxes. VAT services distinctive features of "fractional" impact without 'cascade' features and it applies only to the value added, but at more than one stage in production and distribution. The evaluating criterion of the tax in the developing countries must be based on the goals of the country, and hence the criterions for taxation are:

I. Maximum net contribution to economic development,
II. Minimum adverse effect on efficiency in the utilization of resources and encouragement of greater efficiency,
III. Ease of administration of the taxes,
IV. Maximum contribution to the attainment of desired patterns of distribution of income and wealth, and
V. Revenue elasticity.

Basically, VAT offers the advantages of the retail form of the sales tax without the needed to collect the entire amount of tax for the retailers. However, it is a more complex levy and if carried through the retail level, invoices far more tax paying firms than the manufactures sales tax. Hence the choice of VAT must be made on the basis of production and distribution conditions in the country concerned, revenue needs, administrative qualification, and other factors. Universality and simplicity are the most important requirements for successful implementation of VAT while administration and equity consideration makes the loss of some good features of VAT.

Implementation Aspect:

First of all, the lawyer’s familiar the tax jurisprudence must draft tax legislation. Relatively small audit staff can be used most effectively if it is assigned either to headquarter, or to two or three major industrial and commercial area. Registration of the business firms is a major issue, which can be made effectively by using newly hired staff of inspectors and enforcement officers and needs door-to-door check. Tax return having the frequent interval (one month may be regarded as a suitable interval) minimizes tax liability and smoothes the flow of revenue. Computerized administration is basic need for successful implementation of VAT. It is beneficial to avoid the small refunds when possible, by requiring the firm to carry forward the credit against its tax liability in succeeding periods. Separate manuals are desirable for auditors and inspectors.

2.14.4 Richard A. Musgrave and Peggy B. Musgrave (1976) analyzed the sales tax may be imposed in either single or multiple stages. A properly implemented value added tax is equivalent to a corresponding single stage tax, from the economist’s point of view. Value added tax has come to be the basis instrument of tax coordination among common market countries, where it has replaced widespread use of turn over taxes. Base of a consumption type of value added tax is same as that of retail sales tax, notwithstanding the differences in techniques, only the made of collection differs. Hence choice between the two must be made in terms of administrative convenience. Only the value added approach is fusible if a sales tax is to be imposed on net product.

Among three types of VAT are: GNP type, income type and consumption type, the last one so most important from the practical point of view and it also invoices both efficiencies and equity criterion. Among the three type of computing base for VAT, the addition method is readily applicable to the income type but clumsy for the consumption type of VAT. By making the tax credit for each firm contingent of presentation of the tax receipts made out to the preceding supplier. The invoice method includes a self-enforcing element because each will demand copy of such receipts. This methods further, constitutes an advantage of the value-added approach, especially in those countries where tax compliance is otherwise poor.

2.14.5 Due and Friedlander (1977) State that VAT serves many potential advantages over the types of consumption taxes. Further VAT is gaining growing popularity, although it is the newest innovation in the field of sales tax. Value-added, the base of the VAT, by a business firm is the difference between the sales of firm's product and the sum of the amounts paid by the firms for produced goods and services purchase during the period which is equivalent to the total sum of the factor payments made by the firm (including the profits of the owner).

VAT is not being separated for the objections of the sales tax. Among such objections major one is equality aspect i.e. regressive nature of tax. Other major aspects of objecting the tax are economic efficiency, stabilization. As the other part of coin, VAT having a broader coverage, yields a greater revenue and it can be used a supplement to income tax and especially in underdeveloped countries where effective operation of high income tax. It may be considered as key element to raise revenue but serious problem come from administrative complexities in developing countries. A VAT extending through the retail level is basically identical to a retail sales tax, exempt that the tax is collected in increments throughout the production and distribution channels, instead of entirely from the retailers for the given equivalent rate and coverage, the revenue yield will be the same of both a VAT and retail sales tax. The following advantages are found while evaluating the value added form of sales tax.

I. A properly designed value added tax produces no economic distortions or loss of Efficiency.

II. There is a greater ease in excluding producer's good from tax.

III. Cross-checking is easier with the VAT.

VAT to be the optimal from of the sales tax needs the following requirements.

I. It must be neutral among regarding the consumer choice and purchases.

II. It must avoid the burden on the very poor at least, be a proportional pattern for other income levels.

III. It must be neutral among various methods of organization and conduct of production and distribution.

iv) Administration and compliance cost must be minimized as possible as.

2.14.6 Richard Goode (1986) Describes value added tax as the most important tax innovation of the second half of the twentieth century and it applies to the value added at successive stages of production and distribution. Value added tax, a sale tax on consumption is fairer than an income tax because the later results in double taxation of saving are unconvincing but he former lacks the progressiveness which is served by the later. The following merits of VAT are explained by him:

I. It is broad-bases and relatively neutral,

II. It avoids both simple cascading and cumulative taxation of goods of producers that are not physically incorporated in the product,

III. Separating the tax over the several stages of production and distribution is often considered an administrative advantage compared with collecting it all at one stage because enterprises have less incentive to evade tax.

IV. It generates the possibility of using information as cross-check on compliance with other taxes, particularly income taxes.

Besides these, suitability of value added tax is questionable for countries where small enterprises are important, accounting is unreliable and administration is weak.

2.14.7 Rup Bahadur Khadka (1989), in his report “VAT in Asia and Pacific region” examines the structure and operations of VAT in the Asian Pacific countries. It focuses on the nature of the VAT and the various types and methods of production and analyses the reason for its growing popularity. Further, it also explore the possibility of introducing VAT in Nepal and examines various issues concerning to it. He writes, VAT is levied on the value added to each commodity by a firm during the process of production and distribution, and it is shifted forward completely to the consumers. Among the Asian Pacific countries, China, Indonesia, Korea, New Zealand, Philippines and Taiwan have introduced VAT as a part of large –scale tax reform programs.

Popularity of VAT is growing rapidly because of its several positive aspects such as neutrality, more equitable than other form of sales tax except retail level sales tax, self policing nature in administration, difficult for the evasion, advantageous to exempt exports, broad based etc. however VAT is complex and difficult for implementation, especially from administrative point of view and it is vertically inequitable since it puts a relatively higher burden on the lower income group vis-a –vis to their high income counterparts. With this positive and negative aspect of VAT, he concludes the need of VAT introduction in Nepal. Furthermore he suggests that especially consumption tax could be levied on luxurious and socially undesirable goods, inter – alia, to mitigate the regressive of commodity taxes. Lastly, he concludes that VAT should be seen as a long term and major step for the rationalization of Nepalese tax system and should be introduced only after adequate and proper preparation.
2.14.8 Narayan Raj Tiwari (1990), in an article “Value added tax: its prospects, problem in Nepal and suggestion” deals on historical background of Nepal’s tax system and various aspects of VAT in Nepalese context. The reason behind growing popularity of the value-added tax is explained on the following aspects.

I. It is based on the most modern theories,

II. Less possibility for tax evasion,

III. It makes taxes administration more efficient and simple.

IV. It has no cascading effect.

V. It is increase the revenue yield because of its broad base.

VI. It services the input credit facility.

VII. vii) It also helps to collect the income tax and special consumption tax.

VIII. viii) It is also more informative.

Examining the development of tax system and existing problems of sales tax in Nepal, the following preconditions for VAT implementations in Nepal are identified.

I. Invoice system must be made compulsory as VAT is basically based on invoice.

II. Computerized and a separate administration is needed.

III. If possible VAT rate must be limited (10 percent on average) or at most two rates e.g. 5 and 10 percent or 10 and 15 percent.

IV. Basically, threshold must be fixed based on administration capacity.

V. Exemption should be given to exports and some primary agricultural products to encourage exports and introduce progressively.

VI. Computerization is essential for effective administration.

VII. Customs duties, excise duties and other taxes needs to be redesigned while implementing VAT.

It is appropriate to introduce VAT after a proper preparation of 3 or 4 years. As on experience show.

2.14.9 Johan F. Due and Francis Greany (1991) Explained a successful story of VAT in Trinidad and Tobago in their paper “Trinidad and Tobago: the Development of VAT” a general types of value added tax was being implemented in Trinidad and Tobago in 1990. By careful planning, VAT was developed through the several phases from 1986 to 1989. In 1987, a tax performance committee was established which reviewed the existing tax system and developed a preliminary recommendation for directions of reform as its first task. The study concludes the urgent need of reforming the existing tax system and showed VAT as its alternative. Further, different issues such as rate, structure, exemption, thresholds tax administration etc. were resolved for the final adoption of VAT. The structure of VAT was drafted in the final report after careful examination of several issues including revenue and equity with the development of analytical models. Finally it was drafted and passed by the legation in 1989 after several detailed works.

A reasonably satisfactory operation of VAT was seen even in the first year of the VAT implementation. At the VAT was well received and also welcomed by the business community, it yield the previously expected and forecast results. Although, proper choice of tax structure. Efficient administration, close co-operation between the government and the business sector, extensive program for public awareness, the coordinated reforms in other taxes such as purchase tax income tax and selection competent person, and experts in key position were the several reasons for getting expected revenue yields with successful implementation. Many suggestions and lessons can be taken for the introduction and successful operation of VAT to other developed countries from the experience of Trinidad and Tobago.

2.14.10 Jacob A. Frankel, Asaf Razin and Steven Symansky (1991) provided a dynamic analysis of key macroeconomic issues pertinent to domestic and international effects of international VAT harmonization envisaged for Europe in 1992 through an article "International VAT harmonization". They state that the VAT harmonization policies envisaged for 1992 have long been an important component of the wide ranging measures associated with more towards the since European market. And inter- temporal neo- classical tax model with a micro- economics foundation is developed to analyze the incentives effects of various tax policies and their welfare implication. Employing the saving investment approach through mathematical tools the relation of the international economic interdependence is shown.

The major finding of the study is that the removal of barriers to trade and factors, movement, unification of the marks, development of new monetary arrangement and increased harmonization of fiscal policies and tax structures are all key factors in a process that is likely to affect the shape of the global economic system for years in future. Besides they concluded that one of the elements for the movement towards tax harmonization in the EC is convergence of Various VAT system. Authors revealed the dynamic simulation that effects the tax charges on domestic and foreign levels of output, employment, investment, consumption and other key macroeconomic variable depends critically on the degree of substitution governing temporal and inter- temporal allocation as well as on the tax system. The policy of VAT harmonization may generate significant conflicts within the country and between the countries.

2.14.11 Alan A. Tait (1991) in a paper entitled "VAT policy issues: structure, Regressively, Inflation and Exports" Mainly deals on the policy issues of VAT by illustrating some theoretical as well as empirical proofs. He has made the following conclusion. VAT provides a new buoyant revenue base and improves tax system in terms of neutrality and efficiency. Experience broadly shows that VAT contributes from 12 percent to 30 percent of revenue in most countries, responding about 5 to 10 percent of gross national product. However, VAT is more complicated than other sales taxes from administrative point of view and substantial refunds can be involved. Further, collecting VAT and paying refunds make it inefficient.

The study compares VAT and its most usually quoted alternative retail taxes in several respects and concludes: neither the RST nor the VAT can tax the unofficial and black transactions and both are open to evasion by underreporting sales. However undervaluation is more difficult in VAT. A VAT covering all stages of production to the retail level and the services is more preferable. Single rated VAT with only few exemptions and without zero rates makes it more regressive. However, VAT needs to be evaluated in relative since for its regressive nature. Further, in trying to soften the regressively of VAT major distortions can be introduced. If VAT is replaced to get equal tax-yield, relative price may be increased, and it will have deflationary effect rather than inflationary if net revenue is raised.

Lastly, at least if VAT cannot promote exports would make the system easier. A VAT administration is affected by the decisions regarding: whether all retail sales are included: should services be taxed, choice of proper rates, and the treatment of capital goods, financial services, food, small traders.

2.14.12 Kwang Cho (1993) Analyses and evaluates that VAT experience in lore through his paper "Value -Added Tax in the Republic of Korea". The study captures all the aspects from its introduction to effects on the economy. VAT in the Republic of Korea was introduced in 1977 as a major step of tax reform with the objectives of sampling tax structure and its administration, promoting exports and capital formation. Besides these, introduction of VAT was also supported by the expectation of higher revenue productivity and maintaining the neutrality in the existing indirect tax system. A single rate of 10 percent was used since the introduction of VAT and general characteristics remained same as the VAT adopted by the European countries. Korean VAT was of the consumption type covering all the stages of production and distribution and the tax credit method was used consumption. Experience showed goods symptoms for the prospects of VAT, as the effect of VAT on the economy were lesser than the expectation made by either VAT supporter or opponents. VAT showed a good impact on investment and encouraged exports as compared to the previous tax system, and there were no major impacts on price increase, as well.

However, VAT being a member of indirect taxation, could not remain exception from the viewpoint of regressively. To some extent, there was regressive impact of VAT with respect to income. The experience showed that practice is not as simple as theory. It created a host of problems that gave rise to voluminous paper work, more or less arbitrary distortion in trade and consumption, and inequalities in the distribution of tax burden. From the policy point of view, VAT revolved around three issues:

I. Coverage of the VAT,
II. The level and structure of the tax rate, and
III. The treatment of small taxpayers.

The study analyzing positive and negative results of VAT concludes that Korean VAT has worked relatively well and in some cases much better than its designers and taxpayers had anticipated. As compared to the previous taxes, VAT broadened the tax base, reduced evasion, increased revenue and eliminated many problems that were in existence. Further, Korean experience provided proper lessons for other countries to tackle with the problems and issues relating to VAT implementation including coverage rate structure, administration, special taxpayers, coordination with direct taxation etc.

2.14.13 Zeljko Bogetic and Fareed Hassan (1993), in a paper "Determinants of Value Added Tax Revenue: A cross section analysis" examined the main determinants of the VAT revenue in a simple cross-country frame work. From the inspection of a 49 countries, they found be following facts:

A) A worldwide average VAT rate of 14.4 percents generates 5.1 percent of GDP implying the average revenue productivity ratio of 0.35 percent of GDP.

B) The VAT revenue and revenue productivity varies significantly across countries.

C) Among the five broad classification of the tax base for a VAT, viz.

I. All goods and services (G+S),

II. Goods and Selected services(G+ST),

III. Goods only(G),

IV. Consumer goods and capital goods (C+CG),

V. Consumer Goods, selected services and Capital goods (G+SI+CS), the base i.e. all goods and services (G+S) is most popularly used.

Study concludes the rate and the base coefficient to be significant having positive effect on VAT revenue and they are robust, especially in the single rate countries. The VAT revenue is negatively affected by the dispersion of rates. Hence other things being constant, VAT generates higher revenue in single VAT rate countries than in multiple rate countries.

Lastly, the implications are: To generate superior revenues, a VAT should be levied in a single rate on as possible as broad base; it must be accompanied by a strong tax administration to ensure enforcement and compliance.

2.14.14 a report prepared by a high level task force headed by prof. Madan Kumar Dahal (1995) reviewed Nepalese tax system and made some recommendations for a VAT in Nepal. It has mainly analyzed the magnitude of Nepal's tax system and emphasis for the need of tax reforms in Nepal. Report recommends a VAT as a measure of long –term tax reform for the replacement of exciting sales tax and small services based taxes. The introduction of VAT in Nepal is emphasized due to the following reasons:

I. It broadens the tax base and hence increases the tax revenue,

II. It is more transparent, elastic and prevents tax evasion,

III. It promotes exports, and

IV. It makes tax system more efficient.

Some basic factors to be considered seriously before implementing VAT are:

I. Price level,

II. Equity, and

III. Small traders.

More focus is given for necessary preparation to be undertaken before implementing VAT and a functional organizational pattern is recommended in the report.
In Nepalese context, the following things include the process of VAT implementation.

I. Choice of the type of VAT and computation method,

II. Determination of structure, exemptions and threshold,

III. Providing basic information to the public,

IV. Developing more efficient and proper tax administration,

V. Analysis about the possible effects on different sectors.

In conclusion, report recommended VAT as the best alternate to eliminate the existing weakness of the tax system.

2.14.15 Rup Bahadur Khadka (1996), in his paper "A VAT for Nepal" emphasis on the purposed structure, operation and administrative set up of VAT for Nepal and necessary steps to be undertaken for its introduction. He concludes that Nepal should adopt the destination based consumption type of VAT operated through the tax-credit method. The introduction of this tax should be taken as a major part of the tax reforms program, which will help to streamline the whole Nepalese tax system. A detailed preparation should be considered as prerequisite for the introduction of VAT and then structure and operational aspects of VAT should be designed. A comprehensive VAT education program must be launched to educate the taxpayers. Further, an effective and efficient tax administration must be developed for the successful implementation of this tax.

Khadka further suggests that if Nepal wishes to create progressively through commodity tax, it is preferable to levy a special consumption tax on some luxury items rather than complicate the VAT structure by introducing exemptions,

Zero-rating and multiple rates VAT registered vender should get a VAT registration certificate which must be prominently dish-placed in the public area of business. Due to the several reasons VAT is expected to minimize the existing problem of understatements. However, the possibility of understatement of the sales price cannot be eliminated under VAT and cross–checking at the retail level is impracticable since the final purchaser will have no incentive to insist on tax paid invoices. Existing sales tax and excise department should be recognized for VAT administration. The department should b responsible for general administration, policy, research, and data while the field offices should be made responsible for registration, advice, troubleshooting, compliance and small refunds. For the successful implementation of VAT, A VAT preparation and implementation team with specialized education, training and experience of tax system, tax laws, accounting and auditing system should be created to make recommendation on various aspects of VAT, make necessary preparation for an early introduction of this tax, and to help the sales tax and excise department to implement VAT effectively.

2.14.16 Nepal Chamber of commerce (1970, in a study analyzed the possible effects of VAT on the Nepalese economy. The major observations on VAT found by the study are as follows.

I) Adverse effect on price level,
II) Increase in price of imported goods would discourage import business and re- export of imported goods which reduces the revenue from import tax,
III The account keeping requirement of VAT would increase the tax compliance cost and of doing business that would affect the small traders adversely.

IV) Domestic production will be negatively affected as VAT abolishes the protection policies,

V) VAT will widen the gap of income distribution and is unjustifiable on social ground,

VI) It will affect the overall revenue collection negatively, and

VII) Due to the incapability of existing administration, there is a great risk for its successful implementation and may be failure.

So, a haste decision should not be taken for VAT implementation. Initially, only a partial VAT on some selected commodities should be implemented on a experimental basis to know its pros and cons and thereafter it can be extended to full from successively.

2.14.17 Babu Ram Subedi (1997), in his dissertation concludes that 'VAT is applicable to Nepal' in the same of the tax performance. The existing tax system being inefficient and less productive needs to be rationalized. Empirically, VAT is found to be best alternative to eliminate the existing inefficiencies of tax system. VAT would generate more revenue with less distortion and will unify members of taxes producing very low amount of revenue because of its broad coverage. In Nepal, VAT is desired to achieve the goals of neutrality, revenue productivity, fairness and transparency. However, VAT being a member of indirect taxes is regressive in nature. Utilizing income tax, special consumption tax and some exemption for equity goals, the focus of VAT should be on revenue generation in Nepal. Considering the problem of acute budget deficits and foreign dependency, the preparation of VAT should be accelerated in Nepal. But VAT should be implemented in Nepal only after full and adequate preparation. In theoretical since VAT is the best form of sales tax, especially due to its neutrality regarding the methods of production and generating more revenue further, VAT having the self enforcing feature would make tax administration easier. This study focus that VAT should not be taken as 'a hen with golden eggs' rather it is a challenge for Nepal and it should not be considered as a 'panacea' for curing all ills existing in Nepalese tax system. The most challenging issue for VAT implementation in Nepal is successful tax administration. The existing sales tax administration is not capable of handling VAT. Further, VAT needs more active administrative efforts. Other problems with a VAT implementation in Nepal are: Lack of account keeping system, Lack of sufficient knowledge about VAT, illiteracy and low public awareness. The existing tax evading practices also seems a serious problem. More advantage of VAT can be achieved only if it is extended to the retail level but the extension of VAT to retail level is impracticable and impossible in Nepalese context.

This Study suggests a moderate single rated VAT and further forecasts that 1.5 to 2.5 times more revenue than the existing sales tax will be generated if VAT is implemented well. He concludes: on the one hand, VAT itself is the complex system and on the other, a taxation system is a part of economic ocean. Thus, we have to know our capacity of swimming and realize the depth of the ocean before diving into it.

2.14.18 Carl S. Shoup (1998), in an article made an attempt to analyze the structure of VAT and different policy issues relating to the developing countries. A VAT covering all economies activities from the earlier stage of farming or mining right through the retail level is considered comprehensive. Consumption type of VAT and tax credit method for computation is superior. VAT is more revenue productive and services self-enforcing feature, and it's regressively can be reduced by providing zero rated for foods and basic essentials. VAT will have favourable effect and it is relatively easy to administrator. But it is inflationary because it must be recouped by firms through increase in price. In comparison with turnover tax and retail sales tax, VAT stands in the first position but it requires caution in implementation. Although, the choice between turn over tax and VAT becomes a matter of weighing the pros and cons. Basic accounting and efficient tax administration are lacking in developing countries, which create difficulty for the successful implementation of VAT in such countries.

2.14.19 Krishna Prasad Sharma (1998), in his dissertation entitled "Value Added Tax in Nepal: issues and option" submitted to the central department of economies, analyses the different aspects of VAT such as issues concerning applicability, effects, revenue potential. The narrow the tax base, inefficiency, distortion character, weak administrations are the major defects of the existing sales tax, adoption of a fully fledged VAT would make tax system more productive and elastic by widening the tax base and it would not be more regressive than the present tax system. Tax base in VAT would increase about three fold of the present sales tax in case of imported goods.

Study considers 'Applicability of VAT' as the biggest problems on the supports of the following issues:

I. Lack of administrative capacity,

II. Underdeveloped business structure, practice and distribution system,

III. Business community constitutes a large numbers of small trade most of who are Illiterate and lacks proper accounting records,

IV. Existence of open border and a large amount of unauthorized trade,

V. Undervaluation,

VI. Existing tax evading practice and corrupting nature of the tax administration, and

VII. Lack of the co-operation between the government and the business community.

Clearly, VAT will raise price but in general, it would be lower than that of the taxed commodities if it is properly managed. Although, VAT is regressive on the ground of income distribution, it would not be more than existing sales tax. Further, VAT will have favourable effect on the country's balance of payment, collection of income tax and import duties, on the one hand and on the other it will broaden the base for corruption, illegal trade and tax evasion. VAT will also make incentive to the traders to split their business to go below the threshold limit which makes business sectors fragmented and less efficient. Thus study concludes that VAT is not 'fully' applicable to Nepal.

2.14.20 Khem Raj Paudel (1998), a study on value added tax in Nepalese context its effectiveness in Implementation. VAT found is the best alternative for reducing various mentioned problems. Self policing feature of VAT discourage them who are in the activities of tax evasion and evidence. On the other hand VAT facilities for income tax assessment and help to improve acute deficits in budget and dependency of the economy on foreign loan.

VAT is not more revenue generator. It needs more administration efforts. The implementations of VAT in Nepal have very poor results than expected due to poor planning. Bureaucracy and corruption is widely spreading in political as well as administration. People are less conscious and cannot play decisive role whether to implement VAT or not.

2.14.21 Lalmani Ghimire (1998), in his dissertation, explains that administrative capacity, organizational structure, audit and inspection system, reward and punishment, political intervention, selection of skilled and experienced manpower are needed to improve for effective implementation of VAT among which the first one is most challenging. As Nepal is an agrarian economy, there are large numbers of small traders. So more revenue can be generated only if VAT is extending through retail level, which needs proper and adequate preparation? To make the retail stage VAT more effective and efficient, the major suggestions of this research are two improve the following aspects.

I. Administrative power and creditability,

II. Taxpayer identification system,

III. Registration and educational programs,

IV. Some incentive for small traders.

Single rated VAT is appropriate in Nepalese context because of its administrative simplicity although it is more regressive than the multiple rated.

The existing major problem of VAT implementation of Nepal are existence of small traders in large proportion, lack of accounting recording, illiteracy and high compliance cost, open border with Indian market etc. which create a question for the successful implementation of VAT. The essential pre-requisite for the successful implementation of VAT in Nepal are strong administration, educational program, registration program, training program, technical data base system, combination of various revenue offices, high level VAT implementation team, co-ordination of VAT department, close operation between government and the private sector. In the current status of the growing resource gap and inefficiency of sales tax, VAT should be implemented in Nepal and it is applicable which makes the existing tax system broad-based, neutral, productive, and transparent and ultimately helps the country to become self dependent the study concludes.

2.14.22 Raghu Bir Bista (1999), in his research has concluded, “VAT is applicable and feasible in Nepal”. He has focused the need of VAT for Nepal for several reasons: effective revenue mobilization, industrial department, strong administration, transparency and avoiding all tax loopholes. VAT helps to reduce the gap by broadening the tax base and mobilizing additional resource by controlling tax leakage, smuggling, unofficial trade and corruption through, transparency and account based cross-checking. Positive and favourable effects of VAT on all sectors can be aliened only if government can operate the VAT administration with effectively and efficiently.

The public awareness level relating VAT and effective administration are essential prerequisite in the preparation and successful implementation of VAT. VAT mobilizes the additional resources and the rest of the internal resources by broadening the tax base by checking the existing tax loopholes and it ultimately affects the major micro variables positively which accelerates the economy growth. Income inequality, which is one of the major’s problems of Nepal, can be reduced through VAT by applying the provision like threshold, exemption and zero rating. VAT being account based, invoice based and record based checks the tax loopholes such as undervaluation, non recording, and unauthorized trade. Further, VAT serves the vertically equity. Existing sales tax is neglected on several reasons such as narrow tax base, less elastic, incapable and weak administration, incentive for tax evasion, corruption and political intervention. In this context, the best alternative for existing sales tax is VAT with more efficient and capable administrative efforts.

2.14.23 Rup Khadka (2000), in his book “The Nepalese Tax System” reviews the overall Nepalese tax system and tax administration. He also examines the different stapes that are taken in the process of developing tax system in Nepal. Further, he recommends some measures to design the tax system that is broad-based, low rated, neutral, simple and transparent, and also some essential measures for the reforms of tax administration are suggested.
The current issues of the Nepalese tax system identified are:

I. Lack of co- ordinate long term strategy,

II. Narrow coverage,

III. Artificial tax base,

IV. Defective organizational structure,

V. Weak and traditional tax administration,

VI. Traditional and complex procedures,

VII. Un-forced local taxes.

The study concludes that tax officials are mostly responsible for the existing problems of the tax system and the hesitation of the policy makers to take hard decision is also being boundary to clean the system. The following steps are suggested to take in order to rationalize tax system.

I. Adopt the long co-ordinate approach,

II. Broaden the tax base,

III. Rationalize the tax rates,

IV. Reforms the tax Administration,

V. Enhance the tax compliance,

VI. Implements local taxes.

Along with these existing issues and suggestions, the study considering the introduction of VAT in Nepal states that there was no choice other than to introduce VAT in Nepal to generate revenue required for improving its deteriorating macroeconomic performance. As VAT is based on transaction value, need not to fix arbitrary or artificial values for the tax purpose, which avoids the existing problems of undervaluation, corruption, non implementation, which is the major issue for its success in Nepalese context.

2.14.24 Arjun Dhakal (2000), in his dissertation analyzed the Nepalese tax structure along with the basic emphasis on historical background and potential revenue of VAT in Nepal. The increasing trend of the resource gap of Nepal is forcing the country to dept-trap situation. Domestic resource mobilization through the properly designed tax system is the best way up uplift the situation. In this process Nepal is adopted the destination- based, consumption type VAT operated by the tax credit method. VAT encourages investment, supports economic growth and keeps price stable. Exemptions and zero rating reduce the regressively of VAT, however it makes the administration complex. The study found that VAT is unable to complete the existing sales tax mainly due to the minimum use of the invoice by sellers and as well as having no interest to obtain by purchasers. Elasticity and buoyancy of Nepalese tax system are very low. Further, they are decreasing in recent years. VAT, more attractive from the theoretical as well as empirical aspects, is being ‘hot milk in mouth’ from practical viewpoint mainly due to the inefficient tax administration. Hence the introduction of VAT is not fulfilment of the requirement and VAT system itself has a great need of reforming in the Nepalese context.

2.14.25 Surya Prasad Devkota (2000), a study of the value added tax imposition in Nepal.

I. The flexible behaviour of the government has ruined the original structure of the Value added tax. The government policies acts rules and regulations concerns concerned with the value added tax are not seems to be effective because it could not create the taxpaying habit of the tax payers. Through there were more than enough rights granted to the tax officer.

II. Tax payers are not satisfied with present situation, they think there is not enough preparation for the implementation of VAT. The consumer do not have habit to collect the invoice after purchasing goods and services, which is the most important part of the success and failure of implementation VAT.

III. Government has to collect more than 35 percent revenue from VAT which has been contributing by sales tax, entertainment tax, hotel tax and contract tax. But during the first nine month period of VAT implementation it has shown the negative progress of revenue collection.

IV. Value added tax system has not created positive thinking to the taxpayers because of VAT education.

2.14.26 Raju Laudari (2001), in his dissertation analyses the problems and prospects of VAT in Nepal, basically on the theoretical aspects. In the current status of decreasing revenue from custom duties due to the liberal economic policies, importance of VAT is growing for resources mobilization. The contribution of VAT in tax revenue and gross domestic product is growing while the contribution of VAT taxes to which VAT replaced is gradually decline. From the field survey, the study conclude VAT having positive effect in the nations economics growth majors problems associated with the VAT system to business are account keeping and billing.

From the field survey, the study concludes that VAT will have effect on economics growth major problems associated with the VAT system to business house are account keeping and billing. Weakness of VAT administration are lack of motivation, service minded attitude and dishonesty in VAT officers. VAT system, the best and advanced fiscal tool in theoretical sense, could not yielding the expected returns in Nepal because of the lack of strong and honest tax administration, lack of motivation and services mined attitude among tax officials, lack of the cooperation of business community, lack of coordination between tax collectors and tax payers, lack of strong political commitment and weak public consciousness.

2.14.27 Krishna Bahadur Thapa (2001), Implementation and effective of VAT in Nepal. All the firms who cased to keep their account in computer argued that VAT account keeping is more expensive than previous tax system. But those firms who keep their account manually argued that it is more costly system than the previous tax system. VAT is more costly system than the previous tax system in that country like Nepal which is under developed and people are illiterate.

2.14.28 Basanta Raj Khanal (2001), Value added tax issues and options in Nepal. VAT would have positive impact on the collection of income tax and impart duties. Because of VAT would disclose the trading records of businessmen making than more transparent collection of income tax would certainly increase with VAT. Tax collection from per unit of imparts would also increase due to actual valuation, however, total revenue from imports would decline due to decrease volume of imparts. The VAT would put the revenue or risk. Tax liability would be distributed among more unsophisticated tax payers like traders; there is more danger of revenue leakage. The revenue generation under VAT is not as sure as under the sales tax. The collection inefficiencies are likely to be greater in VAT and Tax evasion would be greater as a result. Further reduction of other taxes the expectation of that the VAT would offset the revenue foregone may fail to meet the objectives.

VAT: Analysis and suggestion (Dr. Roop Jyoti, New Business Age: 2002)

New Business Age, Feb 2002 issue contains this article by famous industrialist and intellectual personality called Dr. Roop Jyoti. According to him VAT was introduced in Nepal in response to realization that the fundamental change was necessary in the country's revenue policy. The business community was strongly against the VAT in the beginning but the gradually withdrew the opposition as they went on being clearer about positive aspects of the VAT and also its simplicity. Government went through many negotiations with business communities before implementing VAT in the kingdom of Nepal. Taxpayers were opposed to VAT not because of any defect in VAT as a system. Rather they were afraid of frequent contacts with revenue officials who were historically notorious for a behaviour that exploited the taxpayers. The success of the VAT is depended on some prerequisites, such as:

I. Acceptance of the correct in voice.
II. Self-assessment of taxes
III. Refund of the tax amount in a speedy and simple manner when the conditions for a tax refund are met.

VAT is useful in the context of Nepal too because of these questions:

I. Limited scope for revenue officials of use discretion.
II. Honest taxpayers have practically no need to have contacts with the tax officials.
III. Due to the self –enforcing mechanism of VAT, the tax payers are forced to become honest.

According to the Roop Joyti VAT system would fail not because of any defect in it but because of these reasons:

I. Inadequate and incorrect step taken to ensure billing and/ or billing at the correct prices.
II. Failure to enforce VAT threshold an effective way.

VAT Refund system (The Kathmandu Post: 2002*)* – The article published in the November 15,2002 issue made a point that Nepalese industrialist and business did not have any faith in the VAT refund system before four or five years. Most of them used to say that it would be impossible to institutionalize a refund system in Nepal. While refund is one of the important features of vat system, it was a big challenge for those who were involved in designing the Nepalese VAT system to create a refund mechanism that can be implemented smoothly under the Nepalese circumstances. The possibility of refund arises when the tax paid by taxpayers on his purchase/imposts exceeds the tax collected on his output. Tax refund is granted after verifying the export declaration forms, letter of credits/bills of entry and proof of payment to authenticate the export and the imports declaration forms or purchase invoices to authenticate the tax paid on inputs. In the absence of these conditions, refund mechanism is likely to be grossly misused by the taxpayers, which will not become sustainable. International experience indicates they provided refund without verification of expert and payment of input tax. So, these countries later on stopped granting refunds even to the genuine exporters. In order to avoid such situation, the system of verification has been introduced in Nepal. On the other hand, refund mechanism has been misused by the tax official in those countries which made full audit mandatory for the refund. This is because resource allocated for audit generally limited. But in case in Nepal problems of allocating budget and realizing the long term process of budget and approving refund a system of refund directly through the VAT revenue collected on imports has been introduced. It was dream of the designers of the refund system to implement it in a proper and effective manner in real life. In the first year of introduction of VAT, no one claimed for the refund.

After publicity regarding the tax refund system the trust of taxpayer's gradually increased and claimed of refund figure indicated that the refund system becoming increasingly effective in real life but there is still long way to go.

2.14.29 Mohan Lal Dangol (2002), Resource mobilization through value added tax in Nepal.

I. The raising of value added tax is less than the raising of sales tax. It might be because of tax rate of sales tax (10 percent and 20 percent) is higher than tax rate of value added taxes of 10 percent. Similarly, the turnover tax as sales tax is imposed on total value at each stage where as value added tax is imposed only on added value in particulars stage. It may be because of threshold provision of tax exemption refund of tax facility found in VAT.

II. The share of contribution of indirect tax to total revenue is higher than the share or contribution of direct tax and non tax. VAT is also raised amidst indirect tax. Through the share of VAT to total revenue is less than the share of non tax to total revenue it is higher than the share of direct tax to total revenue it is higher than the share of direct tax to total revenue.

2.14.30 Him Chandra Basnet (2002) in his dissertation, VAT present status and future prospects in Nepal, by issuing the analytical and explanatory research design and having the objective to ass the present status and future prospect of VAT and its effects on various aspects of economy, has concluded that the implementation of VAT in Nepal would have very poor results than expected due to poor planning and poor implementation, but VAT implementation has been becoming more and more effective and VAT net has spreading and revenue collection is on the constant rise establishing it firmly in Nepal, it is expected that positive impact can be seen in tax collection as code of conduct announced recently includes all the required ingredients, such as utilization of tax revenue, respecting the taxpayers simplification in the service and improvement in the behaviour of the tax administrators, Moreover he recommended that tax related newspapers, pamphlets, radio, television etc. interview programs with professors, researchers tax experts, and economists should be conducted and published through advertising media similarly the student at school campus level curriculum should include tax education and social obligation of paying tax, Boarder should be effectively controlled to prevent the illegal trade. There should' be a broader tax adjustment checking and highway checking should be transparent and VAT officers should control auditing as far as possible.

Tax system and Its Reform in Nepal (Dr. Gobinda Bd. Thapa, Business Age: 2003)-

An article entitled "Tax system and Its Reform in Nepal '' written by Dr. Gobinda Bdr. Thapa, was published in the Business Age: in Dec 2003 views that VAT as an important element of tax return program.

Value added Tax and Its Legal Scrutiny (Mr. Yadav Prasad Dhungana, Business Age: 2003)-

Mr. Yadav Prasad Dhungana has scrutinized the legal aspects of VAT in Value added Tax and Its Legal Scrutiny**. He** concludes that as other areas of economy that are heavily influenced by political instability, corruption. Bad governance, frequent change in government and Moist revolution. VAT also witnesses weak implementation owing to these hurdles.

2.15.1 Padam Raj Paudel (2004), in his dissertation A study on VAT: Implementation, problems and its Effectiveness in the Nepalese Economy, by suing the analytical and explanatory research design and having the objective to examine the historical background of VAT in general, to examine the implementation, problems, effectiveness of the VAT in Nepal concluded after using different statistical and financial tools that the revenue collection from VAT is lower in Nepal then expected Problems related to VAT. In his findings, Nepalese VAT law is inappropriate. Administration is worse. He suggests the VAT laws and administration in Nepal be deeply scrutinized. There is short coming in the implementation. For the efficiency of tax system, in his view there must be strong commitment manpower development planning within in the administration. Apart from them, Tax education packages are to be made and initiated hence, tax administration and tax compliance could be improved.

He is too optimistic about the prospect of revenue collection from vat if the problems relating to VAT system in Nepal can be solved and resources fully and effectively utilized For this, as he recommends, Tax related information should be published regularly through journals, magazines, newspapers, pamphlets, radio, television and cinema, interview programs with professors, tax experts and economists should be conducted and published through media. Timely revision should be made in the matter of VAT policy. The most important thing, the members involved in formulating VAT policies must have deep knowledge about VAT.

In 2004, Mr.Surendra Keshar Amatya, Dr. Bihari Binod Pokharel and Mr. Rewanta Kumar Dahal published a book entitled "Taxation of Nepal (Income Tax, property Tax & value Added Tax)'' This book has exclusively been designed for the subject "Taxation in Nepal'' as par the syllabus prescribed by the faculty of Management, Tribhuvan University for 3rd year of Bachelor of Business studies(BBS) Unlike other books available on this subject, this book makes an in – depth approach to the study of Income tax, property tax and value added tax in Nepal in order to meet the specific requirements of those students who are studying taxation as a concentration/elective subject at BBS 3rd year. This book was very useful to know the legal provisions of Income Tax Act2058and value added Tax Act 2052. Theoretical aspects as well as numerical problems of income tax and value added tax are shrewdly presumed in this book. However the book was failed to analyze legal provisions with numerical examples on the topic of income taxation of insurance business.

Deb Raj Dhakal submitted his MBS thesis on a study on practices of value added Tax in Nepal in 2004. His thesis was guided by the primary objectives like reviewing Nepal's overall tax structure for the period 1990/91 to 2001/2002 examining the theoretical background of VAT, analyzing the existing VAT system of Nepal with special emphasis on revenue mobilization and indentifying the major problems of VAT in Nepal. His study is also chiefly based on the secondary sources and the research design descriptive in nature with the use of figures, ratios, percentages, tables and graphs whenever necessary. He also concluded that the implementation of system in Nepal from its inception has been facing innumerable problems, which curtail its merits and effectives.

According to him, its progress has been slow, initially due to opposition from the business community. He also admits there do exist the immense administrative problems, Even after its full – fledged implementation in 1999, the system has not been taking a considerable place due to administrative ineffiency.VAT regime is extremely challenging in a burgeoning economy like Nepal where, with long open border, a large segment of the economy is yet to be monetized, Resistance from the business community, ignorance of general people and the lack of full support and commitment from the politicians and government officials forced the authority responsible for implementation VAT to make compromises on various aspects of VAT which has weakened the process of implementation right from the beginning.

To overcome these problems he put forth his recommendation which include the establishment of proper co- ordination between Inland Revenue Department and Ministry of Finance, the amendment of Unpractical acts, rules and regulation, the need to revenue the VAT laws on the basis of experience gained so far, cutting down of the existing labyrinth of VAT exemption adoption of dual rate VAT system: a lower rate of tax on the goods and services, installation of computer and networking system and so on.

The book named "Tax Laws and Tax planning'' written by Mr. Ishwor Bhattarai and Mr.Girija Prasad Koirala published in 2006 described the income tax system in depth. This book includes the separate chapter on value added Tax. It describes VAT practices in Nepal with several theoretical aspects and numerical examples. This book was specifically designed for the students of MBBS 2nd years under Tribhuvan University. However, the book was failed to mention legal provision with examples regarding taxation of income from insurance business.

Pushpa Raj Kandel Published a tax book entitled "Tax Laws and Tax planning in Nepal '' in 2004, 05, 06 & reprint 2007. The book was designed to fulfil the needs of MBS and BBS levels under T.U. The book was very useful to the students and teachers to know the legal provision of Income Tax Act 2058.The book has attached unofficial translation of the tax laws both Acts and Rules – related to value added tax and income tax. The book was more informative rather than analytical

In 2008, Milan Shakya submitted his MBS thesis on Tax Reform in Nepal: a study of Nepalese VAT. His thesis was mainly focused on Nepalese VAT system. And whole thesis was centralizing how to reform the VAT system in Nepal. And his study is also mainly based on the secondary sources and the research design descriptive in nature with the use of figures, ratios, percentages, tables and graphs whenever necessary. He also concluded that the implementation of system in Nepal from its conception has been facing innumerable problems, which curtail its merits and effectives.

According to him, The Accounting system should be transparent. And Taxpayers should be encouraged to register their business voluntarily. Instead of forcefully coercing tax payers, providing various facilities to them can increase VAT compliance. The tax administration can select genuine business person and rewards them He also admits there do exist the immense administrative problems, Even after its full – fledged implementation in 1999, the system has not been taking a considerable place due to administrative ineffiency.VAT regime is extremely challenging in a burgeoning economy like Nepal where, with long open border, a large segment of the economy is yet to be monetized, Resistance from the business community, ignorance of general people and the lack of full support and commitment from the politicians and government officials forced the authority responsible for implementation VAT to make compromises on various aspects of VAT which has weakened the process of implementation right from the beginning. To overcome these problems he puts first his recommendation which include the establishment of proper co- ordination between Inland Revenue Department and Ministry of Finance, the amendment of Unpractical acts, rules and regulation, the need to revenue the VAT laws on the basis of experience gained so far, cutting down of the existing labyrinth of VAT exemption adoption of dual rate VAT system: a lower rate of tax on the goods and services, installation of computer and networking system and he adds The success of VAT system is not only the success of the IRD, but also the success of nation as a whole. The role of general media, radio, TV, newspaper, plays an important one. Emphasis should be given one mass media. Awareness toward VAT system should be created among general public, nongovernmental and government organization. And Government provides to the Taxpayer, customers are clearly ignoring the VAT system and taking for it granted. They have lack of proper knowledge about computation of tax liability, taking invoice or bill on their purchases. So, emphasis should be given in educating the tax payer. The issuance of proper bill for every taxable sells must be made mandatory so on.

2.15 Research Gap

There are various studies available upon the VAT and sales tax separately. Researcher has made research VAT as separate part and sales tax as separately. Before replacing the sales taxes by VAT all researchers have focused on sales tax system and after replacing the sales tax by VAT all researcher are focusing only for VAT. Government replaces the tax system under conducting various studies and seminars and implemented the VAT system. There was existing sales tax system in Nepal before 2054 and government replaces it by VAT to increase the tax revenue, to decrease the leakage of tax, to decrease the evasion of tax as well as to increase the effectiveness of tax administration.

Thus previous studies were basically focused only on VAT, effectiveness, problem and prospectus etc. there is no comparative study between VAT and sales tax on contribution of public revenue. So, this topic is selected to find out that the revenue collection through VAT is being progressive than the sales tax system or not.

CHAPTER-THREE

RESEARCH METHODOLOGY

Introduction

The data have been collected from secondary sources in order to fulfil the objectives of the study. As regards with the historical background of value added tax of the different countries in the world numerical data cannot be found to analyze the concerned subject matter. Descriptive abstracts are taken from books booker articles, newspapers, magazines by making adjustment of own views of highlights the historical background of value added tax is the global context.

Research Design

The research design is made in descriptive way for the study of historical background of value added tax. Regarding the analysis of revenue collection through value added tax the research design is made on the available of collected data from secondary sources of 15 years including sales tax by making format containing indirect tax, direct tax, total tax revenue, contract tax, entertainment tax, hotel tax under various tables and the actual collection of sales tax, VAT and estimated sales tax, % of sales tax on total tax revenue as well as % of VAT on total tax revenue and comparison between sales tax and VAT.

Data Collection procedure

Data for tabulation and analysis are collected from secondary sources i.e. published by Nepal Government, Ministry of Finance and internal revenue department. Some of the information has also been taken from the newspapers, magazines and some others have taken from the internet sites.

Data Analysis Procedure

The collected information has been tabulated in a frequent distribution for the purpose of data presentation analysis and extract of findings. Various quantitative method like standard deviation, mean, correlation, coefficient, coefficient variations and probable errors as well as other mathematical methods are used to analyze the tabulated data.

Research Variables

This research is conducted using the following research variables.

I. Total Tax Revenue

II. Total Direct Tax Revenue

III. Total indirect Tax Revenue

IV. Tax Revenue and Non Tax Revenue

V. VAT (Value Added Tax)

VI. Sales Tax

CHAPTER-FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

Tax Revenue is the main source of government's Revenue. Collected Revenue is measurement of effective revenue administration. Collected revenue is also main source to develop the nation and raise living standard of peoples. Governments collect the amount from the various sources to apply in various activities and to run country so smooth and well. In this research shows the collection of revenue and effectiveness of revenue administration.

Table -4

Collection of Sales Tax and Total Tax revenue

(In Rs.Crore)

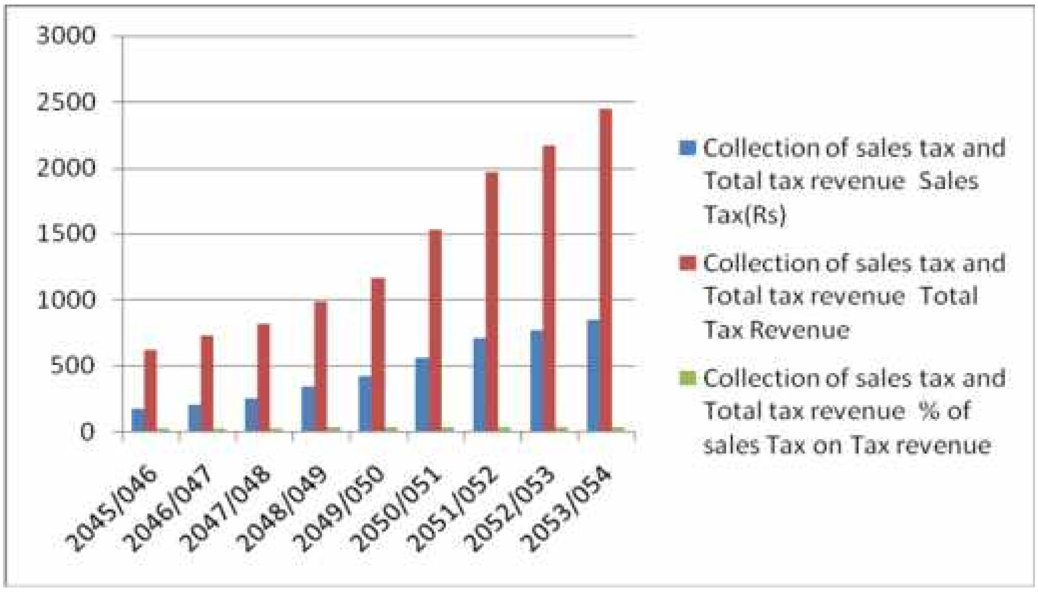
Fiscal Year	Sales Tax(Rs)	Total Tax Revenue	% of sales Tax on Tax revenue
2045/046	176.59	628.71	28.09
2046/047	204.15	728.39	28.02
2047/048	252.78	817.58	30.92
2048/049	346.15	987.56	35.05
2049/050	421.34	1166.25	36.13
2050/051	565.16	1537.15	36.77
2051/052	713.53	1966.00	36.29
2052/053	774.04	2166.80	35.72
2053/054	847.71	2442.43	34.71

Sources: Annual Report of IRD 2064/065 & Economic Survey 2061/062 & 2064/065

Before VAT system is levied on the country, there was existed sales tax system till FY 2053/054. The government disowned the sales tax system and introduced VAT in the country. Above table shows that sales tax was also increasing trends each year. The percentage of sales tax is also increasing year by year except FY 2052/053 and FY 2053/054 and it can be due to external environment business i.e. political instability. Sales tax was covering major portion of tax revenue in this period of time.

Figure No.1

Collection of Sales Tax and Total Tax revenue



Sources: Economy Survey 2064/065

Table -5
Sales Tax and Indirect Tax

(In Rs.Crore)

Fiscal Year	Sales Tax	Indirect Tax	% of sales Tax o n Indirect Tax
2045/046	176.59	474.03	37.25
2046/047	204.15	565.29	36.11
2047/048	252.78	659.90	38.31
2048/049	346.15	802.14	43.15
2049/050	421.34	931.82	45.22
2050/051	565.16	1214.26	46.54
2051/052	713.53	1530.53	46.62
2052/053	774.04	1639.81	47.20
2053/054	847.71	1846.30	45.91

Sources: Economy Survey 2060/061

The above table shows that the sales tax is increasing each year. The correlation coefficient of sales tax is 0.9989 i.e. positive correlation which means perfect correlation between two variables (sales tax and indirect tax). The S.D. of sales tax is 206.08 crore and indirect tax is 513.18 crore. The C.V. of sales tax is 52.07% and C.V. of indirect tax is 43.33% i.e. sales taxes is consistencies and uniformity on indirect tax. The probable error (P.E) is positive of sales tax 0.000494361(see app-3). It means the relation of sales tax with indirect tax and calculation is significant.

Table -6

Comparison of Sales Tax and VAT

(In Rs.Crore)

Fiscal Year	VAT	Sales Tax (estimated)
2054/055	836.39	962.18
2055/056	876.59	1054.42
2056/057	1025.97	146.66
2057/058	1238.24	1238.90
2058/059	1226.73	1331.14
2059/060	1345.97	1423.38

Sources: Economy survey 2060/061

Comparison between VAT and sales tax showed that collection of VAT is increasing each year but increasing sales tax (based on estimation) is greater than VAT. There is no doubt VAT is modern and effective tax system then sales tax but the major aspect is week in effectiveness and efficiency on collection tax revenue by tax administration.

Table -7

Hotel Tax and Indirect Tax

(In Rs.Crore)

Fiscal Year	Hotel Tax	Indirect Tax	% of Hotel Tax on Tax
2049/050	22.34	913.82	2.44
2050/051	21.91	1214.26	1.80
2051/052	22.91	1530.53	1.50
2052/053	28.42	1639.87	1.73
2053/054	30.11	1846.30	1.63
2054/055	4.59	1899.04	0.24
2055/056	0.15	2061.88	0.073
2056/057	0.18	2382.62	0.076
2057/058	0.00	2840.16	0.0035
2058/059	0.00	2843.19	0.00
2059/060	0.00	3248.12	0.00

Source: Economy Survey 2060/061

Hotel tax is replaced and included within the VAT from 2054. Due to the cause, the hotel tax is decreasing trend in this table. A nominal amount is collected after 2054 and became zero from 2058. Nominal amount is collected from small hotel businesses which are out from boundary of VAT. Hotel tax contributed a small portion of indirect tax before 2054/057.

Table -8

Hotel Tax and Total Tax Revenue

(In Rs.Crore)

Fiscal Year	Hotel Tax	Total Tax revenue
2054/055	4.51	2593.98
2055/056	0.15	2875.22
2056/0057	0.18	3315.50
2057/058	0.01	3886.50
2058/059	0.00	3933.06
2059/060	0.00	4258.69

Sources: Economy Survey 2060/061

Hotel Tax is also included into VAT since FY 2054/055. Thus, the amount is in decreasing. In FY 2058/059 the collection of hotel tax is zero because in this time.
Every entertainment business registers and involved within the VAT and VAT replace the entertainment tax system.

Figure No. 2

Hotel Tax and Total Tax Revenue

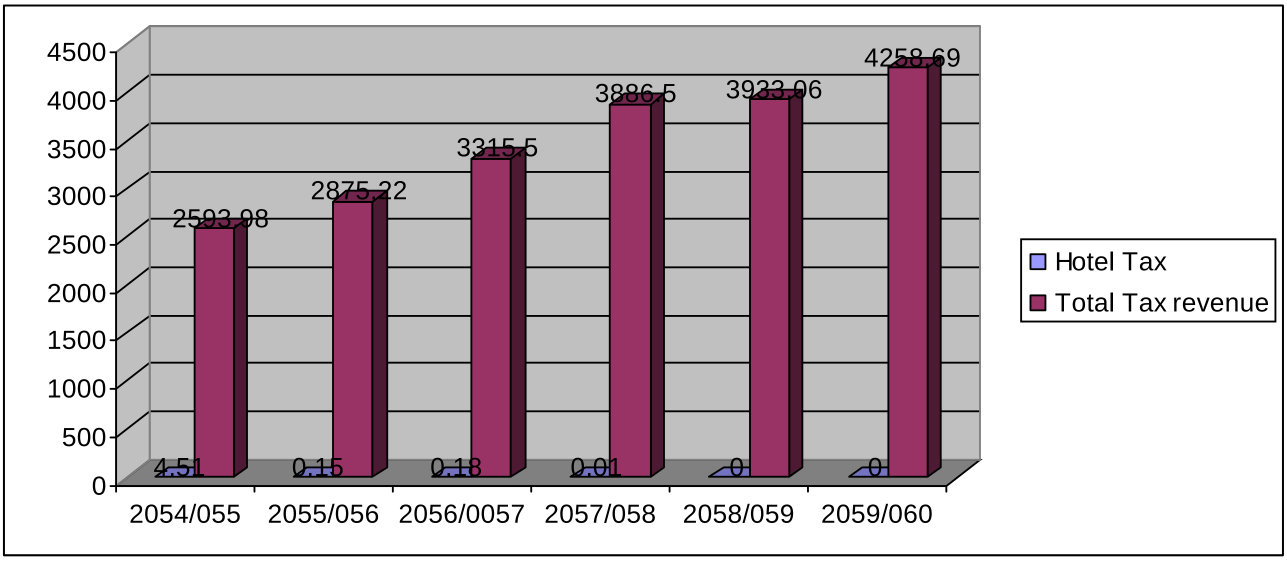


Table -9

Entertainment Tax and Indirect Tax

(In Rs.Crore)

Fiscal Year	Entertainment Tax	Indirect Tax	% of Indirect Tax
2049/050	5.31	931.82	5.70
2050/051	11.22	1214.26	9.24
2051/052	9.11	1530.53	5.95
2052/053	10.04	1639.87	6.12
2053/054	11.40	1846.30	6.17
2054/055	9.06	1899.04	4.77
2055/056	2.35	2061.88	1.14
2056/057	2.85	2382.62	1.20
2057/058	3.04	2840.16	1.07
058/059	0.21	2843.19	0.74
2059/060	0.00	3248.12	0.00

Source: Economy Survey 2060/061

Entertainment tax was another tax before involving into the VAT. VAT includes entertainment tax now a day. Thus figure points that the tax amount is decreasing and become zero in FY 2059/060 due to replace by VAT.

Table -10

Collection of Entertainment Tax and Total Tax Revenue

(In Rs.Crore)

Fiscal Year	Entertainment Tax	Total Tax Revenue
2054/055	9.06	2593.98
2055/056	2.35	2875.24
2056/057	2.85	3315.30
2057/058	3.04	3886.50
2058/059	0.21	393.06
2059/060	00.0	4258.69

Source: Economy Survey 2060/061

Entertainment tax is included into VAT since FY 2054/055 that's why the tax amount is decreased. The above table shows that a nominal amount is collected as entertainment during this period of time. This decreasing figures indicates that nominal amount collected and it is paid by small type of entertainment business which did not necessary to register with in the VAT system i.e. th

Figure No.3

Collection of Entertainment Tax and Total Tax Revenue

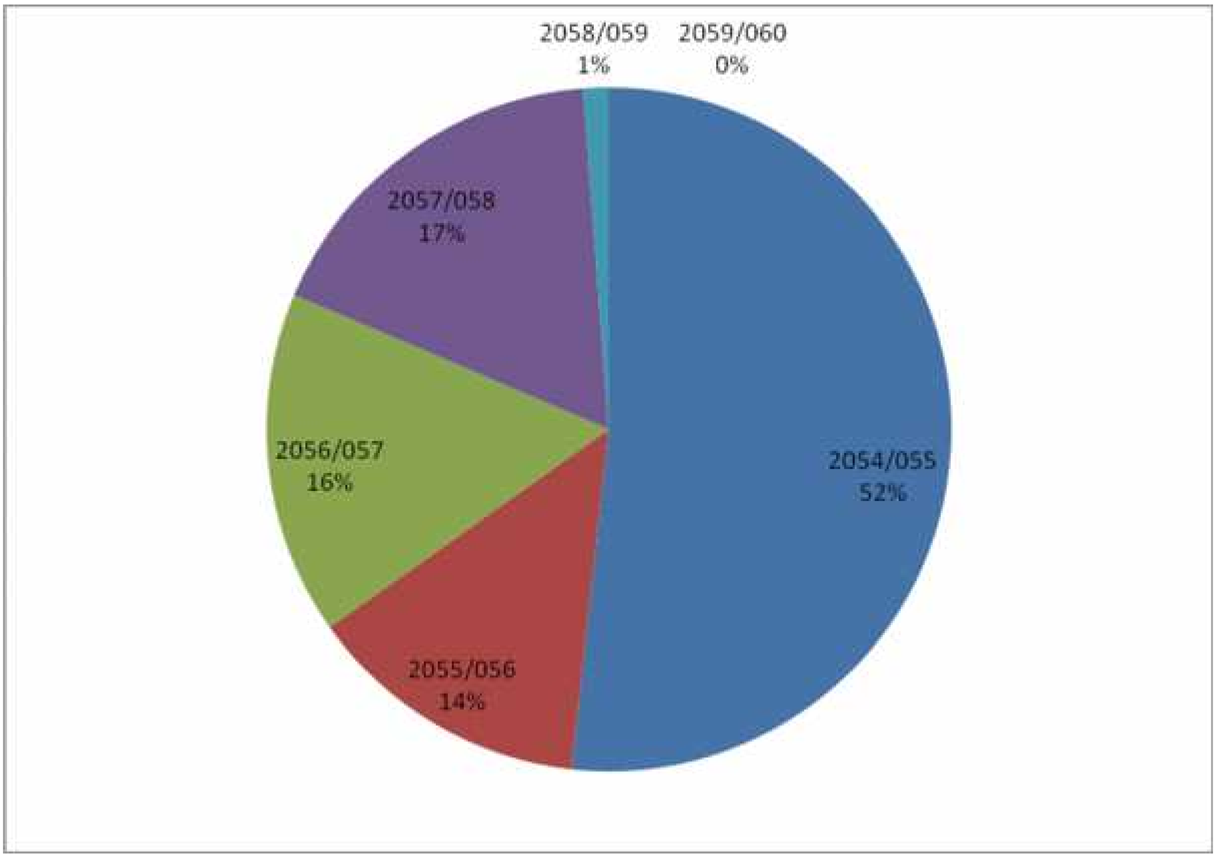


Table -11

Comparison of Total of (Sales Tax, Entertainment Tax, Hotel Tax, Contract Tax) and Total Revenue

(In Rs.Crore)

F/Y	Sales Tax(S)	Entertainment Tax(E)	Hotel Tax(H)	Contract Tax(C)	Total of (S+E+H+C)	Total Revenue	% of Total Tax on Total Revenue
2045/046	137.97	3.28	9.32	19.32	169.89	777.67	21.85
2046/047	165.01	3.35	9.97	17.05	195.38	928.75	21.04
2047/048	202.61	3.94	11.56	17.33	235.44	1072.93	21.94
2048/049	284.04	3.83	19.13	21.33	328.33	1351.27	24.30
2049/050	343.82	5.31	22.34	29.30	400.77	1514.84	26.46
2050/051	469.31	11.22	21.91	35.65	538.09	1958.09	27.48
2051/052	603.17	9.11	22.91	50.52	685.71	2460.51	27.87
2052/053	643.13	10.04	28.42	61.34	742.93	2789.31	26.63
2053/054	712.65	11.10	30.11	62.13	815.99	3037.35	26.87

Sources: Economy Survey 2064/065& IRD 2065/066

Sales tax, Entertainment tax, Hotel tax & Contract tax are replaced and included within the VAT from 2054. Due to the cause, Sale tax is totally replaced & included in VAT from 2054. Entertainment tax is decreasing trend in above table 4.11. A nominal amount is collected after 2054 and became zero from 2060. The hotel tax is decreasing trend in above table 4.10. A nominal amount is collected after 2054 and became zero from 2058. Nominal amount is collected from small hotel businesses which are out from boundary of VAT. Hotel tax contributed a small portion of indirect tax before 2054/057. So forth the above table shows that the Contract tax is increasing each year. Nominal amount is collected from small contract businesses which are out from boundary of VAT. Contract tax contributed a small portion of indirect tax before 2054/057. A nominal amount is collected after 2054 and became zero from 2059. Total Revenue trend is increasing in this table. But percentage of Total tax of (sale tax, Entertainment Tax, hotel tax & Contract tax) increasing 2048/049 upto 2051/052 & decreasing 2052/053 up to 2053/054 due to cause, Sales tax, Entertainment tax, Hotel tax & Contract tax are replaced and included within the VAT from 2054.

Table -12

Direct Tax, Indirect Tax and Tax Revenue

(In Rs.Crore)

Fiscal Year	Direct Tax	Indirect Tax	Total Tax Revenue	% of Direct Tax on Total Tax Revenue	% of Indirect Tax on Total Tax Revenue
2049/050	234.43	931.82	1166.25	20.10	79.90
2050/051	322.89	1214.26	1537.15	21.01	78.99
2051/052	435.45	1530.55	1966	22.15	77.85
2052/053	526.93	1639.87	2166.8	24.32	75.68
2053/054	596.13	1846.3	2442.43	24.41	75.59
2054/055	624.94	3834.05	4458.99	14.02	85.98
2055/056	651.30	2224.00	2875.29	22.65	77.35
2056/057	793.56	2521.65	3315.21	23.94	76.06
2057/058	954.65	2931.86	3886.50	24.56	75.44
2058/059	946.57	2986.49	3933.06	24.07	75.93
2059/060	869.13	3389.55	4258.68	20.41	79.59
2060/061	1021.51	3795.79	4817.3	21.21	78.79
2061/062	1127.26	4283.21	5410.47	20.83	79.17
2062/063	1178.7	4564.34	5743.04	20.52	79.48
2063/064	1672.68	5439.99	7112.67	23.52	76.48
2064/065	2014.7	6500.85	8515.55	23.66	76.34
2065/066	3619.34	8222.03	11841.37	30.57	69.43

Sources: Economy survey 2060/061

The portion of direct tax is 22.47 % on total tax revenue and 77.53% is indirect Tax. The correlation coefficient of direct and indirect tax is positive i.e. there is close relationship between direct and indirect tax. The S. D. of direct tax is Rs.817.36 crore. The C.V. of direct tax is 100% and The S. D. of indirect tax is Rs.1994.56 crore(see app-2). The C.V. of indirect tax is 70 %(see app-2). This figure clears that the contribution of indirect tax (i.e. VAT) over total tax revenue is high VAT and other indirect tax are the main sources of income to run the country smoothly.

Table -13
Tax revenue and Total Revenue

(In Rs.Crore)

Fiscal Year	Tax Revenue	Total Revenue	% of Tax Revenue
2049/050	1514.84	1894.17	79.97
2050/051	1958.08	2194.44	89.23
2051/052	2457.52	2851.23	86.19
2052/053	2789.31	3271.82	85.25
2053/054	3037.35	3636.18	83.53
2054/055	3293.79	3834.05	85.91
2055/056	2875.29	3725.10	77.18
2056/057	3315.21	4289.37	77.28
2057/058	3886.50	4889.36	79.48
2058/059	3933.06	5044.55	77.98
2059/060	4258.70	5623.78	75.73
2060/061	4817.30	6233.10	77.29
2061/062	5410.47	7012.27	77.16
2062/063	5743.04	7228.20	79.45
2063/064	7112.67	8771.22	81.09
2064/065	8515.55	10762.25	79.12
2065/066	11901.37	14295.68	83.25

Source: Economy Survey 2060/061 & 2064/065

The revenue is playing vital role to make budget each year because the above table shows that major amount of total revenue is form tax revenue. The table shows function of tax revenue on total revenue during these seventeen years of time. The collection of tax revenue is fluctuation due to various reasons i.e. political instability, ineffective revenue administration and leakage of tax revenue. There is no dour tax revenue is major sources of income of government to fulfil the expenditure of nation and tax should be paid compulsory by the people. The lower % of the tax revenue is 77.18 in FY 2055/056 and the highest % of tax revenue is 89.23 in FY 2050/051.

Table -14
Tax revenue and Non Tax Revenue

(In Rs.Crore)

Fiscal Year	Tax Revenue	Non Tax Revenue	Total Revenue	% of Tax Revenue
2049/050	1166.25	398.59	1564.84	74.53
2050/051	1531.15	420.94	1952.09	78.44
2051/052	1966.00	494.50	2460.50	79.90
2052/053	2166.80	622.51	2789.31	77.68
2053/054	2442.43	594.92	3037.35	80.41
2054/055	2593.98	699.81	3293.79	78.75
2055/056	2875.29	849.81	3725.10	77.19
2056/057	3315.22	974.16	4289.38	77.29
2057/058	3886.50	1002.86	4889.36	79.49
2058/059	3933.06	1111.49	5044.55	77.97
2059/060	4258.68	1364.29	5622.97	75.74
2060/061	4817.30	1415.80	6233.10	77.29
2061/062	5410.47	1601.80	7012.27	77.16
2062/063	5743.04	1485.16	7228.20	79.45
2063/064	7112.67	1658.55	8771.22	81.09
2064/065	8515.55	2246.70	10762.25	79.12
2065/066	11841.37	2394.31	14235.68	83.18

Source: Economy Survey 2060/061

Above data cleared that the portion of tax revenue on total revenue is increasing per year and the development of the nation is also depend upon this revenue. Non tax revenue is also increasing the total revenue is also increasing during the period. The correlation coefficient of tax revenue and non tax revenue is positive i.e. tax revenue and non tax revenue are closely correlated. Standard deviation (δ) of tax revenue is Rs 2801.26 crores and Standard deviation (δ) of non tax revenue is Rs 639.17 crores (see app-1). The coefficient of variation of tax revenue is 76.58 % and coefficient of variation of non tax revenue is 66.23% (see app-1). The coefficient of variation of tax revenue is greater than Non-tax revenue which means the Non-tax revenue is consistence than the tax revenue.

Table -15
VAT and Indirect Tax

(In Rs.Crore)

Fiscal Year	VAT	Indirect Tax	% of VAT on indirect Tax
2054/055	836.39	2085.24	40.11
2055/056	876.59	2224.00	39.42
2056/057	1025.97	2521.65	40.68
2057/058	1238.24	2931.86	41.46
2058/059	1226.73	2986.49	41.08
2059/060	1345.97	3389.55	39.71
2060/061	1447.88	3795.79	38.14
2061/062	1889.46	4283.21	44.11
2062/063	2194.60	4564.34	48.08
2063/064	2670.41	5439.99	49.09
2064/065	3115.43	6500.85	47.92
2065/066	3994.74	8222.03	48.59

Sources: Annual report of IRD 2064/065 & 2065/066

After replacing the sales tax by VAT, this table shows that the VAT amount is increasing except FY 2058/059. The Correlation coefficient of VAT and indirect tax is 0.9955 which is positive perfect correlation. Standard deviation (δ) of VAT is Rs. 948.38 crore and Standard deviation (δ) of indirect tax is Rs. 1782.05 crore. C.V of VAT is 52.13 % (see app-4) which means collection of VAT is more consistence than the indirect tax (other) because C.V. of indirect tax is 43.70% (see app-4). The probable error (P.E.) of VAT is 0.001748459(see app-4) i.e. the significant measurement.

Table -16
Comparison of VAT and Total Revenue

(In Rs.Crore)

F/Y	VAT	Total Revenue	% of VAT on Total Revenue
2054/055	836.49	3293.79	25.40
2055/056	876.59	3725.10	23.53
2056/057	1025.97	4289.38	23.92
2057/058	1238.24	4889.36	25.33
2058/059	1226.73	5044.55	24.32
2059/060	1345.97	5622.97	23.94
2060/061	1447.88	6233.10	23.23
2061/062	1888.54	7012.27	26.93
2062/063	2161.07	7228.20	29.90
2063/064	2670.41	8771.22	30.45
2064/065	3115.43	10762.25	28.95
2065/066	3994.74	14235.68	28.06

Sources: Economy Survey 2064/065

The above table shows that the VAT is increasing each year except of F/Y 2058/059 and Total Revenue is also increasing the each year. But percentage of VAT is increase 2061/062 upto 2065/066 and percentage of VAT is decrease 2054/055 up to 2060/061. VAT is playing vital role on Total Revenue. VAT contributed a big portion of indirect tax after 2054/055.

Figure No.4

Comparison of VAT and Total Revenue

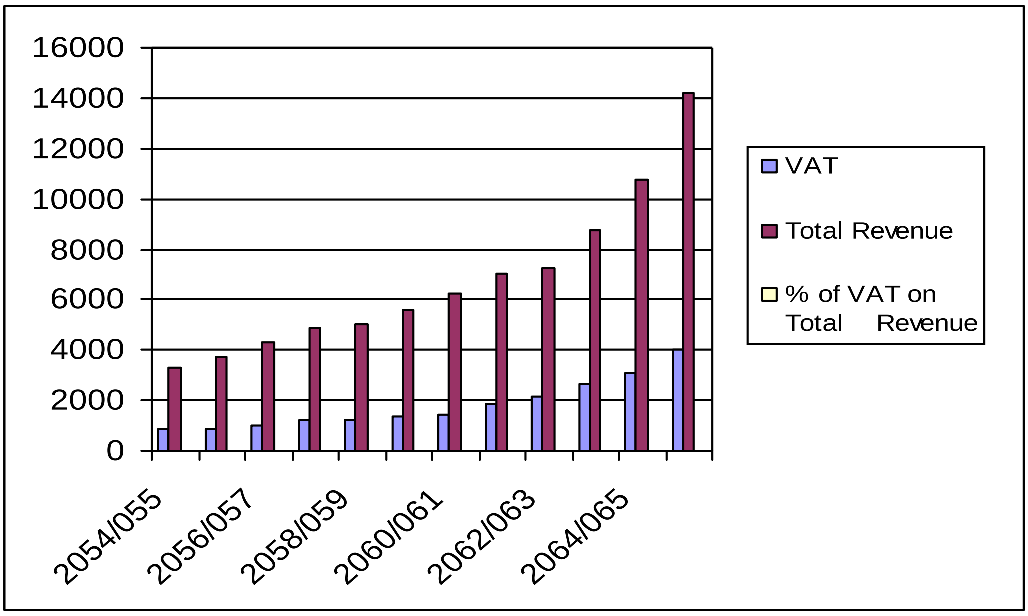


Table -17

Collection of VAT and Total Tax Revenue

(In Rs.Crore)

Fiscal Year	VAT(Rs)	Total Tax Revenue	% of VAT on Tax Revenue
2054/055	836.39	2593.98	32.24
2055/056	876.59	2875.29	30.48
2056/057	1025.97	3315.22	30.95
2057/058	1238.24	3886.50	31.86
2058/059	1226.73	3933.06	31.19
2059/060	1345.97	4258.70	31.61
2060/061	1447.89	4817.30	30.05
2061/062	1889.46	5410.40	34.92
2062/063	2194.60	5743.00	38.21
2063/064	2670.41	7112.60	37.54
2064/065	3115.43	8515.56	36.58
2065/066	3994.74	11901.37	33.56

Sources: Annual Report of IRD 2064/065, Economic Survey 2061/062 & 2064/065

Value added tax system is levied on by government is Nepal is since 2054. The above data shows the amount collected by government as VAT since FY 2054/055 up to FY 2065/066. The above table shows the trend of VAT indicates that collection is rising in every year because the awareness of tax payer increasing as well as the efficiency of tax administration is also playing a vital role as well.

Amount of VAT is increasing every Year except FY 2058/059 and percentage over total tax revenue is also increasing every year except F/y 2058/059 and percentage over total tax revenue is also increasing. It indicates that the VAT is playing the major role on collection of tax revenue is also increasing. Percent of VAT on FY 2058/59, 2060/061,064/065& 2065/066 decreased but total tax revenue amount is increased due to the taxes which is not included in VAT.

Table -18
Comparative Analysis of Sales Tax and VAT

(In Rs.Crore)

	Sales Tax	**VAT**
Total collection	7156.68	21828.06
% on Total Indirect Tax	33.42	44.60
Correlation Coefficient	0.9989	0.9955
Coefficient of Variation	52.07	52.13
Standard Deviation	206.08	948.38

The comparison of sales tax and VAT indicates that collection of sales tax (i.e. based up on estimation) and collection of VAT is nearly same and weight age % of both tax systems is also difference on total tax revenue and total indirect tax. The correlation coefficient of both systems is also nearly equal but Standard deviation of VAT is greater than the sales tax. The coefficient of variation both systems are also nearly equal. And total collection is totally difference with two systems which indicates that uniformity and consistency of collecting of tax is more in sales tax system than VAT and the deviation amount also indicates that there is more deviation (fluxion) on VAT amount than the sales tax amount.

4.2 Major Finding

VAT is latest and scientific tax systems which reduces the leakage as well as increase the tax collections. In this study, some major findings which researcher has found are as follows.

I. Total tax collection through VAT is increasing by each year from Rs 2593.98 in 2054/055 to Rs 4258069 in 2059/060

II. Sales tax was also increasing by each year from 28.09% on total tax revenue to 34.71% in 2053/054.

III. Entertainment tax and hotel tax collection reached in zero in 2059/060 due to replacement made by VAT.

IV. Relation between tax revenue and total revenue is fluctuating. Sometimes increased and some time decreased.

V. The tax revenue contributed by 89.57% (highest level) and 79.97% (lowest level) on total revenue.

VI. The portion of indirect tax is increasing on total tax revenue.

VII. The portion of direct tax on total tax revenue is also increasing.

VIII. The contribution of indirect tax is greater than the direct tax on total tax revenue.

IX. Contribution of tax revenue is 80.41% (highest level) and 75.67% (lowest level) on total revenue and these percentage level prove that the importance of tax revenue on government income sources.

X. Indirect tax revenue contributing a vital role in total revenue than the direct tax.

XI. Tax revenue on total tax revenue is also in fluctuating trend.

XII. More than 44.60% of indirect tax is contributing by VAT.

XIII. More than 33.42% of indirect tax was contributed by sales tax.

XIV. Comparative study of sales tax and VAT shows that sales tax collection was more than the VAT and there was consistency on collection.

CHAPTER FIVE

Summary, Conclusions and Recommendation

5.1 Summary

Taxation is the major source of domestic resources of Nepal. Tax is divided into two types, direct tax and indirect tax. The contribution of tax revenue and non-tax revenue in the fiscal year is percent and percent. On the other hand contribution of indirect tax and direct tax in total tax revenue is percent and percent. The value added tax is indirect tax and it substitutes four taxes such as sales tax, entertainment tax, hotel tax and contract tax.

VAT is new concept on collecting revenue which is recently innovated in the field of taxation. Each step of goods and services are levied to tax on its added value. It covers the value added to each commodity by firm during all stages of production and distribution and the VAT is shifted forward completely to the ultimate users.

The idea of taxing a firm's value added originated with F. Von Simons who purposed it in 1918 as a substitute for the newly establish German turnover tax. Although the idea about VAT was developed in German, France introduced this tax in 1954. More than 100 countries are adoption VAT up to now.

Basically there are three types of VAT with its treatment of capital goods. Under consumption type, a deduction or tax credit equals to the tax on the value of capital goods at the time purchase is allowed. The income type VAT does not exclude capital goods purchase from another firm from the tax base in the year purchased. This variant however, does exclude depreciation from the tax base in the subsequent years. On the other hand Gross National Product type VAT would be allowed to deduct the cost of purchase of capital equipments or depreciation on that equipment.

There are three equivalent method of computation of VAT. In subtraction method, the values of purchase of materials are deducted from total sales of the firm to derive the value added on which that is levied in a taxed rate. Under tax credit method, a gross tax is levied on sales I the period, and from this is subtracted the sum of VATs on purchase invoice and it is also known as the invoice method. The tax base in addition method is obtained by adding the incomes produced by the firm.

The tax base of VAT is all types of expenditures of final consumer goods. An exclusion of a certain business transactions from tax net is an exemption where zero-rating are technically taxable in zero rate and the tax payer is required to fulfil all the formalities like that the supplies of zero-rated goods are not required to pay and he is allowed to claim back the tax, if any on his purchases. Tax is levied on tax is known as the problem of cascading which usually happens in turnover tax. Under the multiple stages, the manufacturer and wholesales tax include rise in price will be much higher than the amount of tax. It is the problem of pyramiding.

A vendor engaged in taxable activities much register of VAT. Registered business has to maintain detailed accounts of all transactions in order to arrive at an accurate tax base and to claim input tax credit.

Value Added Tax has a self-posting feature. The tax credit method of computing VAT facilitates boarder tax adjustment and effective if the exports are zero rated. VAT discourages arbitrary tax assessment by tax office and reduces corruption. The transparency natures of VAT also help to collect more revenue and reduce tax evasion and avoidance.

From the analysis of seventeen years data, most of the revenue is collected from tax revenue in 2049/050 Rs. 1564.84 which is 74.53% on total revenue likewise is 2065/066 Rs. 14235.68 which is 83.18% on total revenue. Sales tax was contributing vital role in tax collection before replaces it by VAT. Percent of sales tax was 28.09% to 34.71% in nine year period, but % of VAT on tax revenue is 30.48% to 33.75%. Contribution of entertainment tax, hotel tax and contract tax are nominal after when VAT introduced in Nepal. Range % of tax revenue with total revenue is 74.53% to 83.18%. Minimum collection of Rs. 1564.84 crore in 2049/050 and maximum collection of Rs. 14235.68 crore in 2065/066 within the seventeen year's data. The portion of direct tax is 22.47% on total tax revenue and 77.53% is indirect tax in aggregate. The portion of tax revenue is high than the non tax revenue in Rs there is the highest collection of tax revenue Rs. 11841.37crore but other hand Rs. 2394.31crore in 2065/066 only is collected from non tax revenue. VAT contributing more than 43.20% of indirect tax collection.

VAT is contributing vital role in collecting tax revenue. VAT includes hotel tax, entertainment tax, contract tax and sales tax.

5.2 Conclusions

Value Added Tax (VAT) is on indirect tax. It is the tax rate which is levied by government upon the business. It replaces the other indirect taxes which were imposed by government before starting the VAT system. Sales tax was also indirect tax and main source of revenue to the government. Existed sales tax along with contract tax, entertainment tax and hotel tax were replaced by VAT since 1997 in Nepal. But sales tax, contract tax, entertainment tax and hotel tax system replaced by the government by VAT due to various weakness faced by the government in collection of revenue under sales tax system. VAT is the latest innovation in tax system and internationally renowned tax policies which is applying more than 130 countries in the world.

The main objectives of tax system are to collect maximum tax revenue through effective way. The tax revenue collections increasing in each year due to effectiveness of VAT system as well as increasing continues in the payers. The main income source of government is tax revenue and which should be increased. Government adopted VAT by replacing the sales tax to decrease the weakness and to increase the collection. But this decision was right or are there improve the collection of the tax is the main question which is rising. According to the study, the VAT collection is improving (i.e. increasing) but sales tax collection was also increasing in each year. VAT is total tax collection of sales tax, entertainment tax, hotel tax and contract tax but sales tax was single tax which did not include other indirect tax. Thus comparing between total VAT collection and total of indirect tax i.e. sales tax, contract tax, entertainment tax and hotel tax. This provides the abnormal results. Sales tax was effective an collection of revenue Table No. 4.13 presents that the total VAT collection F/Y 2054/055 up to FY 2065/066 is Rs 21828.06 (in crore) if sales tax system gets continuity. That's why, a question can be raised, was sales tax system effective than the VAT?

There is no doubt that VAT is new technology in tax system in collection of tax revenue but without good preparation and qualified employee and tight government rules and regulations and awareness in public specially tax payer any new and latest technology cannot do anything itself. Thus, each and every parts concerned with should be ready, effective and efficient to implement the system to get the best result in practice. It is clear that it is difficult for the customers to get the job done by officials without sufficiently bringing them there is also a red tapism everywhere, so for the government, administrative capability and transparency are the serious concern. In order to make VAT applicable, following these should be considered:

I. Administrative power and credibility.

II. Tax payer identification.

III. Registration and educational program.

IV. Incentives for small traders.

V. Co-ordination with private sector.

VI. Feasibility of refund system.

VII. Electronic media.

Since 1995 DANIDA RAS and GTZ RAS have jointly established a VAT project in order to assist the implementation of VAT in Nepal. DANIDA RAS and GTZ RAS has been supporting in human resource development, software development, physical-infrascture & economic development. Especially DANIDA RAS has been supporting VAT system since1995 up to now. And GTZ RAS has been involving income tax draft, translate, monitoring, software development & human resource development. Still DANIDA RAS has been involving VAT system, While the numbers of registrants are increasing but the tax collection has not been satisfactory when compared to the number of registrants. Public awareness is very low. The salesmen are not used to issuing bills and the consumers to receiving them. Undervaluation and smuggling of goods are mostly found.

His problems seem to be aggravated by the government's increasing the VAT rate to 13% which immensely discourages the customer in demanding bills on their purchases.

Truly, recent increment in VAT rate has a fairly negative influence on general people. Their viewpoint is to broaden the tax base instead of increasing the tax rate. Tax rate has been increased time and again for nothing, but this does not get reflected in real revenue mobilizations. Rates should be continued for a long time for transparency and must be incorporated in VAT Act itself so; the government has to pay serious heed in increasing the tax base instead of increasing the tax rates. International experience tells us that the gradual lowering of duties or tax rate is an effective tool in achieving the desired goals rather than increasing it.

Periodical policy has also been obstacles for its speedy enforcement, and a major hurdle that has hurt revenue generation. Excise duty is an important source for VAT, but it has not been effectively administered. Custom officials are more worried on customs duty then VAT collection. Widespread leakages are normal practices due to lack of professionalism, integrity, technically, competent, and academic background. As its weakly enforce, many sectors are out of tax net. Taxpayer complains that the procedures are complicated and time consuming during the decision – making process.

The current modality of the raffle tickets has been designed so as to seize the original bills form eighty percent of taxpayers, who pay only twenty percent of revenue. The system is not new many countries have already tried with the lottery system, and failed gaining from it. It means, we have no valid mechanism has been developed on bringing them in to the tax net.

The April 2005 movement (also known as the second janandolan) is a harbinger of no hope in Nepal. It was intended to overthrow the old feudal regime replacing it with the new sovereign and people ruled system. Nepalese people are beginning to dream of the different New Nepal following the constituent assembly. Under such situation, the old status quo in the administrative filed also must change. Surely, this is a real challenge to the administrators and the policy makers of Nepal. In other words, this is not happening at the moment. If that status quo could not be broken, no matter whatever big changes take place, they would have no influence at all. This is a real paradox. However, if the nation is to march fast enough to keep pace with the momentum of development and political change; it must come out with a new inventory of concepts and strategies as opposed to the old stereotyped ones. It is a well known fact that the industrialization of Japan, Hong Kong and South Korea was possible because of their tax policies. So under the changed system in the country, a tax system definitely could play a crucial role in course of nation-building. Sweeping and radical reforms on VAT system with a comprehensive incentive package based on VAT concept would help the economic boom.

A bold vision, revolutionary leadership, efficient bureaucrats, honest taxpayers plus collectors and graft-free society are the invisible infrastructures required so all must think from a long-term perspective rather than weighing up immediate pros and cons. The Inland Revenue Department must come up with a forward –moving process concrete action plan and policies to cope with the global challenges in order to accelerate the reform process

5.3 Recommendations

On the basis of research, the following corrective measures are recommended for the better administration and implementation of VAT system in Nepal.

I. A proper co-ordination between IRD and MOF should be established. Unpractical Acts, Ruled and Regulation should be amended. VAT laws needs to review on the basis of experience gained so far VAT laws should be effectively implemented.

II. Unproductive, corrupted, inefficient staff lacking practical and specialized training is a serious problem. So, providing training to such staff is highly essential.

III. The tax administration should be very watchful to prevent any kind of malpractice, fraud and tax evasion. Utmost care should be very watchful to prevent any kinds of bribing and corruption. Tax officials should effectively be monitored.

IV. Taxpayer, customers are clearly ignoring the VAT system and taking for it granted. They have lack of proper knowledge about computation of tax liability, taking in voice or bill on their purchases. So, emphasis should be given in educating the tax payer. The issuance of proper bill for every taxable sells must be made mandatory.

V. The success of VAT system is not only the success of the IRD, but also the success of nation as a whole. The role of general media, radio, TV, newspaper, plays an important one. Emphasis should be given one mass media. Awareness toward VAT system should be created among general public, nongovernmental and government organization.

VI. Computer system and networking program through online service must be developed and linked so as to make a work simple and easy. Computer links between tax officer and custom offices should be maintained.

VII. Government has been providing tax refund facility to business organization and foreign diplomacy and foreign aided project. Tax refund is one of the sources of tax leakage. Therefore tax authority should manage tax refund facility properly.

VIII. Research and investigation should be conducted on various issues, such as the effect of VAT on price, economic growth, investment and measures for solving VAT problems should be recommended by the expert group. VAT law needs to be reviewed on the basis of experience gained so far.

IX. The accounting system should be transparent. And the Taxpayers should be encouraged to register their business voluntarily. Instead of forcefully coercing tax payers, providing various facilities to them can increase VAT compliance. The tax administration can select genuine business person and rewards them.

X. Border should be effectively controlled to prevent the illegal trade. Warehouse and highways checking should be done effectively to prevent any kind of illegal.

XI. VAT collection on import is higher than domestic production. Government should take effective stapes to encourage domestic production.

XII. Lots of efforts should be made to establish a functionally well organized organization where the tasks are carried out in a modern, effective efficient, transparent and service minded manner.

XIII. Most of the national economic activities are dependent upon agriculture and large portion of GDP coming from agriculture sector with sufficient exception for generating more tax revenue. This will increase VAT/GDP ratio.

XIV. Most of the taxpayer is not satisfied with VAT administrators. They always have complaints against the administrators who do their jobs rather slowly, harassing the customers unnecessarily. The work that is to be finished today is postponed for the next day. This is their habit. Therefore it is suggested that tax administrators should be consumer focused and result oriented.

XV. VAT collection is increasing in each year but found fluctuation in collection. There should be consistency is VAT collection. To make consistency or increase collection some special and motivated policies should be launched upon tax payers.

XVI. Comparison between sales tax and VAT shows that sales tax is more effective in tax collection and consistency than VAT. So, first of all it is needed to find out the weakness of VAT implementation and leakage and correction on them as well as to prepare innovated plan and policies for tax payer to motivate than to pay the tax amount.

XVII. There is no doubt the effectiveness of VAT but weakness in implementation should be eliminated through tax administration.

XVIII. Special education complains should be lunched for general public as well as tax payers to aware about VAT to increase in collection.

XIX. Research and investigation should be conducted on various issues such as why VAT is not being effective on tax collection and implement the finding of the research.

XX. Lastly, the periodic information about VAT is now available on the website as well. For the researcher this is a great privilege. But the websites are not updated and doesn't have the older report. So the websites must be updated from time to time and must be kept up-to-date. And all backup copies of the old (old fiscal years) annual report and economic surveys must also be available on the website. This facilitates the researchers greatly and other concerned bodies, even the consumers, for minor information, they would not have to frequent the Inland Revenue Department and Ministry of Finance.

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Appendix - 1

Tax Revenues and Non Tax Revenue

FY	Tax Revenue (X)	Non-tax Revenue (Y)	$(X - \overline{X}) = U$	$(Y - \overline{Y}) = V$	U^2	V^2	UV
2045/046	628.71	148.96	-3029.28	-815.54	9176528.66	665112.48	2470510.83
2046/047	728.39	200.36	-2929.60	-764.14	8582547.79	583916.49	2238636.01
2047/048	817.58	255.35	-2840.41	-709.15	8067920.85	502899.80	2014287.91
2048/049	987.56	363.71	-2670.43	-600.79	7131188.75	360953.77	1604378.23
2049/050	1166.25	348.59	-2491.74	-615.91	6208761.11	379350.41	1534697.38
2050/051	1531.15	420.94	-2126.84	-543.56	4523442.31	295462.13	1156073.49
2051/052	1966.00	494.50	-1691.99	-470.00	2862825.32	220904.03	795241.88
2052/053	2186.80	622.51	-1471.19	-341.99	2164395.81	116960.09	503138.08
2053/054	2442.43	594.92	-1215.56	-369.58	1477582.64	136592.54	449251.35
2054/055	2593.98	699.81	-1064.01	-264.69	1132114.24	70063.06	281636.99
2055/056	2875.29	849.81	-782.70	-114.69	612617.05	13154.78	89771.05
2056/057	3315.21	974.16	-342.78	9.66	117497.15	93.23	-3309.77
2057/058	3886.50	1002.86	228.51	38.36	52217.47	1471.16	8764.72
2058/059	3933.06	1111.50	275.07	147.00	75664.29	21607.74	40434.32

2059/060	4258.69	1364.29	600.70	399.79	360842.21	159828.62	240151.85
2060/061	4817.30	1415.80	1159.31	451.30	1344002.99	203667.82	523192.28
2061/062	5410.47	1601.80	1752.48	637.30	3071191.16	406145.83	1116848.90
2062/063	5743.04	1485.16	2085.05	520.66	4347439.46	271082.37	1085593.94
2063/064	7112.67	1658.55	3454.68	694.05	11934823.78	481699.45	2397706.84
2064/065	8515.55	2246.70	4857.56	1282.20	23595903.04	1644025.85	6228344.45
2065/066	11901.13	2394.31	8243.14	1429.81	67949380.62	2044344.38	11786090.72
N =21	$\sum X$ =76817.76	$\sum Y$=20254.59	$\sum U$=0.00	$\sum V$=0.00	$\sum U^2$=164788886.69	$\sum V^2$=8579336.05	$\sum UV$=36561441.44

$$\bar{X} = \frac{\sum X}{N} \qquad \bar{Y} = \frac{\sum Y}{N}$$

$$= \frac{76817.76}{21} \qquad = \frac{20254.59}{21}$$

$$\bar{X} = 3658. \qquad \bar{Y} = 965.00$$

Correlation coefficient between Tax Revenue and Non-tax Revenue

$$(r) = \frac{N\sum UV - \sum u. \sum v}{\sqrt{N\sum U^2 - (\sum U)^2} \sqrt{N\sum V^2 - (\sum V)^2}}$$

$$= \frac{21 \text{ x } 36561441.44 - 0.00X0.00}{\sqrt{21 \text{ x } 164788886.69-(0.00)^2} \sqrt{21 \text{ x } 8579336.05-(0.00)^2}}$$

$$= \frac{767790270.24-0.00}{\sqrt{3460566620.49-0}\ \sqrt{180166057.05-0}}$$

$$= \frac{767790270.24}{58826.58 \text{ x } 13422.50}$$

$$= \frac{767790270.24}{789599770.10}$$

(r) = 0.972

Standard deviation of Tax Revenue (δ) = $\sqrt{\frac{\sum(\bar{X} - X)^2}{N}}$

$$= \sqrt{\frac{164788886.69}{21}}$$

$$= \sqrt{7847089.83}$$

$$= 2801.26$$

Standard deviation Non Tax Revenue (δ) = $\sqrt{\dfrac{\sum(Y-\overline{Y})^2}{N}}$

$$= \sqrt{\frac{8579336.05}{21}}$$

$$= \sqrt{408539.81}$$

(δ) = 639.17

Co- efficient of variation (C. V) of Tax Revenue C.V = $\dfrac{\sigma}{\overline{X}}$ x 100

$$= \frac{2801.26}{3658.00} \text{ x } 100$$

= 0.76.58x100

= 76.58

Co- efficient of variation (c.v) of Non Tax Revenue c.v = $\dfrac{\sigma}{\overline{Y}}$ x 100

$$= \frac{639.17}{964.50} \text{ x } 100$$

= 0.6623 x 100

= 66.23

Appendex - 2

Direct and indirect Tax

F/Y	**Direct Tax (X)**	**Indirect Tax(Y)**	**(X- $\overline{X}$)=U**	**(Y-$\overline{Y}$)=V**	**U^2**	**V^2**	**UV**
2045/046	93.3	535.70	-723.39	-2302.07	523299.98	5299513.13	1665303.31
2046/047	98.34	630.10	-718.35	-2207.67	516033.56	4873794.21	1585888.20
2047/048	82.98	734.60	-733.71	-2103.17	538337.35	4423312.03	1543124.78
2048/049	95.91	891.70	-720.78	-1946.07	519530.67	3787177.33	1402695.54
2049/050	128.13	1038.12	-688.56	-1799.65	474121.43	3238729.84	1239173.61
2050/051	202.21	1334.94	-614.48	-1502.83	377591.52	2258489.42	923464.38
2051/052	291.16	1674.84	-525.53	-1162.93	276186.79	1352399.54	611158.64
2052/053	358.93	1807.81	-457.76	-1029.96	209548.58	1060811.72	471478.09
2053/054	432.46	2009.57	-384.23	-828.20	147636.35	685910.51	318222.13
2054/055	518.37	2075.61	-298.32	-762.16	88997.66	580883.51	227370.35
2055/056	651.30	2224.00	-165.39	-613.77	27355.43	376710.11	101513.87
2056/057	793.56	2521.65	-23.13	-316.12	535.22	99930.05	7313.29
2057/058	954.65	2931.86	137.96	94.09	19031.65	8853.47	12980.60

2058/059	946.57	2986.49	129.88	148.72	16867.58	22118.49	19315.42
2059/060	869.13	3389.55	52.44	551.78	2749.45	304464.32	28932.87
2060/061	1021.51	3795.80	204.82	958.03	41949.28	917826.96	196219.73
2061/062	1127.26	4283.21	310.57	1445.44	96450.77	2089305.05	448904.31
2062/063	1178.10	4564.34	361.41	1726.57	130613.75	2981053.83	623992.47
2063/064	1672.68	5440.00	855.99	2602.23	732710.73	6771615.84	2227472.91
2064/065	2014.70	6501.22	1198.01	3663.45	1435216.55	13420886.84	4388835.71
2065/066	3619.34	8222.00	2802.65	5384.23	7854820.33	28989963.46	15090094.58
N =21	$\sum X$=17150.59	$\sum Y$=59593.11	$\sum U$=0.00	$\sum V$=0.00	$\sum U^2$=14029584.63	$\sum V^2$=83543749.64	$\sum UV$=33133454.79

$$\bar{X} = \frac{\sum X}{N} = \frac{17150.59}{21} = 816.69$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{59593.11}{21} = 2837.76$$

Correlation coefficient between direct and indirect tax :-

$$\frac{N\sum UV - \sum U . \sum V}{\sqrt{N\sum U . (\sum U)2} \quad \sqrt{N\sum V^2 . (\sum V)}}$$

$$= \frac{21 \text{ x } 33133454.79 - 0 \text{ x } 0}{\sqrt{21\text{x } 14029584.63 - (0)^2} \quad \sqrt{21\text{x } 83543749.64 - (0)^2}}$$

$$= \frac{695802550.59}{\sqrt{294621277.23 - 0} \quad \sqrt{1754418742.44}}$$

$$= \frac{695802550.59}{17164.53 \text{ x } 41885.78}$$

$$= \frac{69802550.59}{718949727.38}$$

$$= 0.97$$

Standard deviation of direct tax (σ) $= \sqrt{\dfrac{\sum(X-\overline{X})^2}{N}}$

$= \sqrt{\dfrac{14029584.63}{21}}$

$= \sqrt{668075.46}$

$= 817.36$

Standard deviation of indirect tax (σ) $= \sqrt{\dfrac{\sum(Y-\overline{Y})^2}{N}}$

$= \sqrt{\dfrac{83543749.64}{21}}$

$= \sqrt{3978274.00}$

$= 1994.56$

C.V. of Direct tax Tax = $\dfrac{\sigma}{\overline{X}}$ x100

$= \dfrac{817.3}{816.69}$ x 100

= 1.00 X 100

= 100

$$\text{C.V. of indirect Tax} = \frac{\sigma}{\bar{Y}} \times 100$$

$$= \frac{1994.56}{2837.76} \times 100$$

$$= 0.70 \times 100$$

$$= 70.28$$

Appendix -3

Sales Tax and Indirect Tax

FY	Sales Tax(X)	Indirect Tax (Y)	$(X-\overline{X})=U$	$(\overline{Y}-Y)=V$	U^2	V^2	UV
2045/046	137.97	535.70	-257.78	-648.45	66449.96	420491.73	167157.58
2046/047	165.01	630.10	-230.74	-554.05	53240.43	306975.10	127841.65
2047/048	202.61	734.60	-193.14	-449.55	37302.63	202098.20	86826.23
2048/049	284.07	891.70	-111.68	-292.45	12472.17	85528.95	32660.86
2049/050	343.82	1038.12	-51.93	-146.03	2696.61	21325.73	7583.35
2050/051	469.31	1334.94	73.56	150.79	5411.24	22736.62	11092.03
2051/052	603.17	1674.84	207.42	490.69	43023.52	240773.41	101778.77
2052/053	643.13	1807.81	247.38	623.66	61197.41	388947.64	154280.88
2053/054	712.65	2009.57	316.90	825.42	100426.31	681312.67	261575.46
N= 9	$\sum X=3561.74$	$\sum Y=10657.38$	$\sum U=0.00$	$\sum V=0.00$	$\sum U^2=382220.29$	$\sum V^2=2370190.04$	$\sum UV= 950796.82$

$$\overline{X} = \frac{\sum X}{N} = \frac{3561.74}{9} = 395.75$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{10657.38}{9} = 1184.15$$

Correlation coefficient between sale tax and indirect tax

$$(r) = \frac{N\sum UV - \sum u.\sum v}{\sqrt{N\sum U^2 - (\sum U)^2}\ \sqrt{N\sum V^2 - (\sum V)^2}}$$

$$= \frac{9 \times 950796.82 - 0 \times 0}{\sqrt{9 \times 382220.29 - 0^2}\ \sqrt{9 \times 2370190.04 - 0^2}}$$

$$= \frac{8557171.00}{\sqrt{3439983.00}\ \sqrt{21331710}}$$

$$= \frac{8557171.00}{1854.72 \times 4618.62}$$

$$= \frac{8557171.00}{8566247.00}$$

$$= 0.9989$$

Standard deviation of indirect tax (σ) $= \sqrt{\frac{\sum(Y-\overline{Y})^2}{N}}$

$$= \sqrt{\frac{2370190.04}{9}}$$

$$= \sqrt{263354.45}$$

$$= 513.18$$

Standard deviation of sales tax (σ) = $\sqrt{\dfrac{\sum(X-\overline{X})^2}{N}}$

$= \sqrt{\dfrac{382220.28}{9}}$

$= \sqrt{42468.92}$

$= 206.08$

C.V. of indirect tax (cv) = $\dfrac{\sigma}{\overline{Y}} \times 100$

$= \dfrac{513.18}{1184.11} \times 100$

$= 43.33\%$

C.V. of sales tax. $= \dfrac{\sigma}{\overline{X}} \times 100$

$= \dfrac{206.08}{395.75} \times 100$

$= 52.07\ \%$

Probable Error (P.E.) = $0.6745 \dfrac{1-r^2}{\sqrt{N}}$

$= 0.6745 \times \dfrac{1-(0.9989)^2}{\sqrt{9}}$

$= 0.6745 \times \dfrac{1-0.99780121}{3}$

$= 0.6745 \times 0.0007329$

$= 0.0004943$

Appendix - 4
VAT and Indirect Tax

FY	VAT (X)	Indirect Tax (Y)	$(X-\overline{X}) = U$	$(Y-\overline{Y}) = V$	U^2	V^2	UV
2054/055	836.49	2075.61	-982.52	-2002.37	965335.73	4009475.61	1967356.10
2055/056	876.59	2224.00	-942.42	-1853.98	888146.03	3437232.57	1747216.21
2056/057	1025.97	2521.65	-793.04	-1556.33	628904.51	2422155.29	1234222.18
2057/058	1238.24	2931.86	-580.77	-1146.12	337287.99	1313585.32	665624.93
2058/059	1226.73	2986.49	-592.28	-1091.49	350789.68	1191344.96	646460.76
2059/060	1345.97	3389.55	-473.04	-688.43	223762.11	473932.42	325650.30
2060/061	1447.88	3795.80	-371.13	-282.18	137733.77	79624.14	104723.12
2061/062	1888.54	4283.21	69.53	205.23	4835.12	42120.38	14270.84
2062/063	2161.07	4564.34	342.07	486.36	117008.46	236548.48	166367.59
2063/064	2670.41	5440.00	851.41	1362.02	724890.47	1855105.29	1159632.77
2064/065	3115.43	6501.22	1296.43	2423.24	1680717.78	5872104.21	3141552.16
2065/066	3994.74	8222.00	2175.74	4144.02	4733822.79	17172922.48	9016294.79
N=12	$\sum X = 21828.06$	$\sum Y = 48935.73$	$\sum U = 0.00$	$\sum V = 0.00$	$\sum U^2 = 10793234.43$	$\sum V^2 = 38106151.16$	$\sum UV = 20189371.75$

$$\bar{X} = \frac{\sum X}{N} \qquad \bar{Y} = \frac{\sum Y}{N}$$

$$= \frac{21828.06}{12} \qquad = \frac{48935.73}{12}$$

$$= 1819.05 \qquad = 4077.98$$

Correlation coefficient between Vat and indirect tax

$$(r) = \frac{N\sum UV - \sum u.\sum v}{\sqrt{N\sum U^2 - (\sum U)^2}\ \sqrt{N\sum V^2 - (\sum V)^2}}$$

$$= \frac{20189371.75 - 0 \times 0}{\sqrt{10793234.43-(0)^2}\ \sqrt{38106151-(0)^2}}$$

$$= \frac{20189371.75}{3285.30 \times 6173.01}$$

$$= \frac{20189371.75}{20280225.77}$$

$$= 0.9955$$

Standard deviation of Indirect tax (σ) = $\sqrt{\dfrac{\sum(Y-\bar{Y})^2}{N}}$

$$= \sqrt{\frac{38106151.16}{12}}$$

$$= \sqrt{3175512.60}$$

$$= 1782.05$$

Standard deviation of VAT (σ) $= \sqrt{\dfrac{\sum(X-\overline{X})^2}{N}}$

$$= \sqrt{\frac{10793234.43}{12}}$$

$$= \sqrt{899436.20}$$

$$= 948.38$$

C.V. of VAT = $\dfrac{\sigma}{\overline{X}}$ x100

$$= \frac{948.38}{1819.05} \text{ x100}$$

= 52.13

C.V. of indirect-Tax = $\dfrac{\sigma}{\overline{Y}}$ x100

$$= \frac{1782.05}{4077.98} \text{ X100}$$

= 43.70

$$\text{Probable Error (P.E.)} = 0.6745 \frac{1-r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1-(0.9955)^2}{\sqrt{12}}$$

$$= 0.6745 \times \frac{1-0.99102025}{\sqrt{12}}$$

$$= 0.6745 \times \frac{0.00897975}{3.464101615}$$

$$= 0.001748459$$

APPENDIX II

VAT Exempted Goods and Services

1.	**Basic Agricultural Products**	
	(a)	Paddy, rice, wheat, maize, barley, millet, buck, wheat, cereals, pulses, flour, coarse ground meal, grist, flat rice of paddy, gram, cow pea, peas, horse bean and similar other basic unprocessed agricultural products used in the form of food stuffs and their remains.
	(b)	Green and fresh vegetables, fresh fruit, fresh egg, edible wild roots and fruits, fresh unprocessed agricultural products used in the form of curry and edible wild roots (except those supplied by hotel, restaurant, bar, guest house, cafeteria or similar other institution.
	(c)	Unprocessed Cash Crops(such as sugarcane, cardamom, ginger and dry ginger, jute, unprocessed tobacco a farmer sells, tea leaf, certified orthodox tea produced using compost manure, tea packing box (tea chest), coffee seed, soybean, peanuts, rape seed, mustard seed, sunflower seed, sesame seed) and cake produced out of them.
	(d)	Herbs (including their extraction).
2.	**Goods of Basic Needs**	
	(a)	Drinking water supplied openly by tap and tanker.
	(b)	Firewood and charcoal
	(c)	Kerosene oil (except aviation fuel)
	(d)	Salt

3.	**Live Animals and Their Products**	
	(a)	Goat, He-goat, sheep, he-buffalo, yak, wil dboar, pig, rabbit,and similar other animals and their unprocessed uncooked dishes.
	(b)	Cow, she-buffalo and she-goat and their fresh milk (including pasteurized) and fresh curd.
	(c)	Duck, hen, cock, turkey, guinea, fowl and similar other birds and their fresh meat, unprocessed uncooked dish and egg.
	(d)	Fresh or dried fish (other than packed)
4.	**Agricultural Inputs**	
	(a)	Seeds of crops/plants, seeds of grass, graft of plant and bulb/gland used in the form of seeds.
	(b)	Manure, chemical fertilizer and soil curing materials.
	(c)	Ordinary Tools Used in Agricultural Works: Hand Tools used for digging and cleaning land, hand tools for cutting twigs/bushes and wood, except hand saw, hand tools used for brushing down grains and rice …. Cleaning, hand tools for cutting animals feeds and blade of plough.
	(d)	Chemical pesticides made completely or mainly for use in crops.
	(e)	Tractor, cultivator, harrow, leveller, animal feeds cutting machine, thresher, fish catching nets, readymade cages for rearing fishes, fish incubator, pumping set up to 8 horse power and hose pipe up to feed supplement, ingredients only.
	(f)	X-ray film and oxygen gas to be used for treatment purpose.

6	**Education**	
	(a)	Activities concerning research conducted in schools and university.
	(b)	Professional or vocational training or refresher training without having profit earning motives.
	(c)	Educational services rendered by school or university.
7	**Book Newspaper and Printed Materials**	
	(a)	Book, Newspaper, magazine and their printing and publication.
	(b)	Newsprint paper.
8	**Cultural, Artistic and Sculpturing service**	
	(a)	Painting, sculpturing, architecture and other handicrafts of similar nature and services related to them.
	(b)	Cultural Program.
	(c)	Entrance fee to library, museum, art gallery, zoo and botanical gardens (national park)
9	**Passenger Transportation and Goods Carrying Services**	
	Air Travel, transportation (except cable car) and goods carrying services (except transportation services concerning supply)	
10	**Professional or vocational services.**	
	Vocational services rendered by artist, sportsman, writer , designer, translator and interpreter in an institutional or individual basis.	

11	**Other Goods and Services**		
	01	Postal Services (operated by Government of Nepal only)	
		a	Services relating to conveying to handing over later, money and parcel.
		b	Other services required for rendering services relating to conveying, handing over letter, money and parcel.
		c	Postage stamps
	02	Financial and Life Insurance services	
	03	Bank notes and Chequebook	
		a	Issue and printing of Nepali bank notes
		b	Supply of bank notes to Nepal from out of Nepal.
		c	Chequebook
	04	Gold and Silver	
		a	Gold, golden coins, and ornaments of gold, Jewelleries
		b	Silver, silver coins, readymade goods and ornaments made of silver
	05	Electricity	
	06	Raw Wool	
	07	Airplane, Helicopter, Fire Bridge, Ambulance, Human Dead Body Carrying Van.	

	08	Products of Jute
	09	machineries included in section 84 of customs tariff subject to maximum of 5% custom
	10	Spinning, dying, washing and weaving of woollen carpet and woollen yarn of carpet.
	11	Dhoti (Gents/Ladies) Petani, Gamchha.
	12	Goods received in donation for natural calamity or philanthropic purpose recognized by Ministry of Finance, Government of Nepal.
	13	Goods of personal use not required custom duty, imported under facility of personal baggage order.
12	**Land and Building**	
	Purchase and sale of land & building and rent(except services provided by entity operated professionally such as hotel, guesthouse)	
13	**Betting, Casino and Lottery**	
	Activities relating to facilities provided for betting or gambling, lottery.	
	Post Script.	
	The Department can do the job of interpreting and quoting harmonized code of tax exempted goods and services.	